

10/716,238

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NEWS 8 DEC 09 12 databases to be removed from STN on December 31, 2004  
  
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AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004  
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FILE 'HOME' ENTERED AT 10:21:25 ON 10 DEC 2004

=> file reg

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 10:21:30 ON 10 DEC 2004

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STRUCTURE FILE UPDATES: 8 DEC 2004 HIGHEST RN 795251-52-4  
 DICTIONARY FILE UPDATES: 8 DEC 2004 HIGHEST RN 795251-52-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

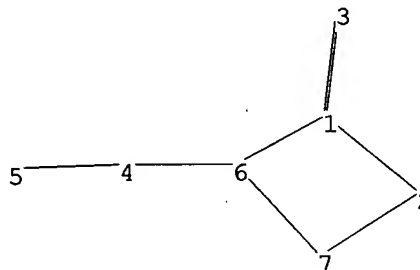
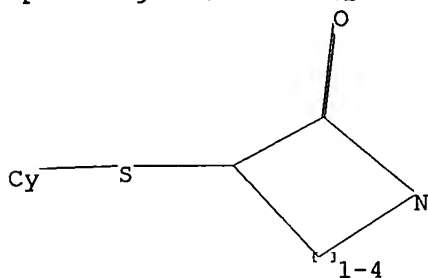
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<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

Uploading C:\STNEXP4\QUERIES\10716238.str



chain nodes :

3 4 5

ring nodes :

1 2 6 7

chain bonds :

1-3 4-5 4-6

ring bonds :

1-2 1-6 2-7 6-7

exact/norm bonds :

1-3 1-2 1-6 2-7 4-5 4-6 6-7

isolated ring systems :

containing 1 :

Match level :

1:Atom 2:Atom 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom

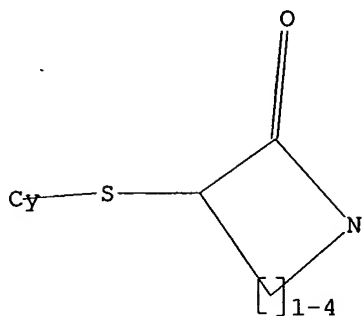
Generic attributes :

5:

Type of Ring System : Polycyclic

L1 STRUCTURE UPLOADED

=> dis l1  
 L1 HAS NO ANSWERS  
 L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 sam  
 SAMPLE SEARCH INITIATED 10:21:57 FILE 'REGISTRY'  
 SAMPLE SCREEN SEARCH COMPLETED - 865 TO ITERATE

100.0% PROCESSED 865 ITERATIONS 10 ANSWERS  
 SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
 BATCH \*\*COMPLETE\*\*  
 PROJECTED ITERATIONS: 15536 TO 19064  
 PROJECTED ANSWERS: 11 TO 389

L2 10 SEA SSS SAM L1

=> s l1 full  
 FULL SEARCH INITIATED 10:22:03 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 17770 TO ITERATE

100.0% PROCESSED 17770 ITERATIONS 389 ANSWERS  
 SEARCH TIME: 00.00.01

L3 389 SEA SSS FUL L1

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	155.42	155.63

FILE 'HCAPLUS' ENTERED AT 10:22:08 ON 10 DEC 2004  
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FILE COVERS 1907 - 10 Dec 2004 VOL 141 ISS 25  
FILE LAST UPDATED: 9 Dec 2004 (20041209/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13

L4 31 L3

=> s 14 and pd< mar 2001

21363466 PD< MAR 2001

(PD<20010300)

L5 26 L4 AND PD< MAR 2001

=> sel hit rn 15 1-26

E1 THROUGH E88 ASSIGNED

=> dis 15 1-26 bib abs hitstr

L5 ANSWER 1 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:133871 HCAPLUS

DN 134:185890

TI Silver halide color photographic material with excellent storage stability and photographic properties

IN Kawabe, Satomi; Hoshino, Hiroyuki

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 121 pp.

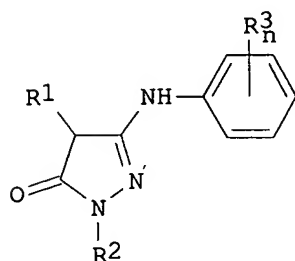
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001051382	A2	20010223	JP 1999-225183	19990809 <--
PRAI	JP 1999-225183		19990809		
OS	MARPAT 134:185890				
GI					



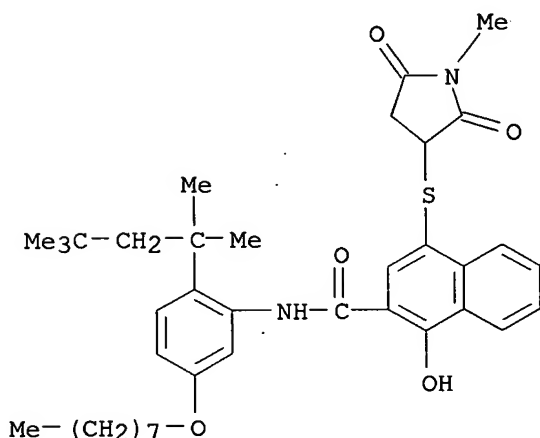
I

AB The title photog. material contains at least 1 photog. development inhibitor releasing (DIR) coupler, at least 1 photog. magenta coupler represented by a general formula I (R1 = group capable of cleaving upon reaction with oxidized developing agent; R2 = aryl; R3 = substituent; n = 1-5), and deionized gelatins. The photog. material may contain a specified cyan coupler and a specified yellow filter dye.

IT **326592-54-5**  
 RL: DEV (Device component use); USES (Uses)  
 (photog. DIR coupler in color photog. film with excellent storage stability and photog. properties)

RN 326592-54-5 HCAPLUS

CN 2-Naphthalenecarboxamide, 1-hydroxy-4-[(1-methyl-2,5-dioxo-3-pyrrolidinyl)thio]-N-[5-(octyloxy)-2-(1,1,3,3-tetramethylbutyl)phenyl]-(9CI) (CA INDEX NAME)



L5 ANSWER 2 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:62612 HCAPLUS

DN 134:123526

TI Silver halide color photographic material containing developing inhibitor-releasing (DIR) coupler and inhibition-controlling agent and its imaging

IN Ishige, Osamu; Kataoka, Emiko; Tozai, Masakazu

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 56 pp.  
 CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001022038	A2	20010126	JP 1999-193066	19990707 <--
PRAI	JP 1999-193066		19990707		
OS	MARPAT 134:123526				

AB The material comprising a support laminated with  $\geq 1$  red-, green-, and blue-sensitive Ag halide photog. emulsion layers and a yellow filter layer contains (A) a DIR coupler in  $\geq 1$  of the photog. layers, (B) an inhibition-controlling agent in the same or other emulsion layer. The material is processed with a solution containing 0.025-0.100 mol/L color

developer and 0.01-50.0 g/L poly(vinylpyrrolidone) for 95-120 s. It showed improved color reproduction and high sensitivity because of its interimage effect.

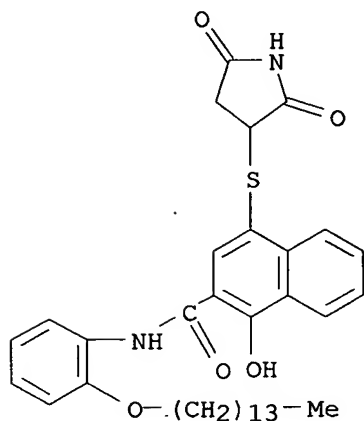
IT 321546-72-9

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(inhibition controller; silver halide color photog. material containing DIR coupler and inhibition controller)

RN 321546-72-9 HCAPLUS

CN 2-Naphthalenecarboxamide, 4-[(2,5-dioxo-3-pyrrolidinyl)thio]-1-hydroxy-N-[2-(tetradecyloxy)phenyl]- (9CI) (CA INDEX NAME)



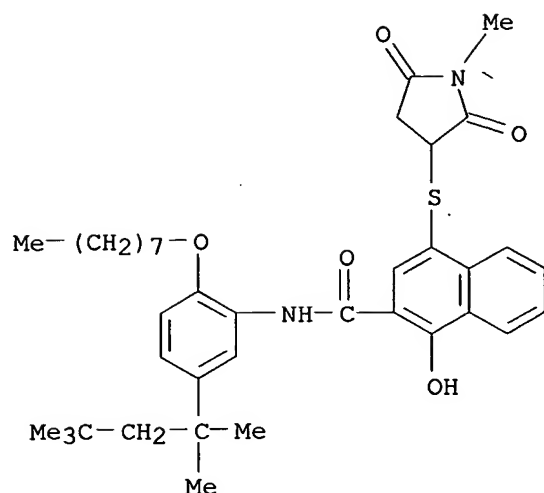
IT 321546-73-0P

RL: DEV (Device component use); MOA (Modifier or additive use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(inhibition controller; silver halide color photog. material containing DIR coupler and inhibition controller)

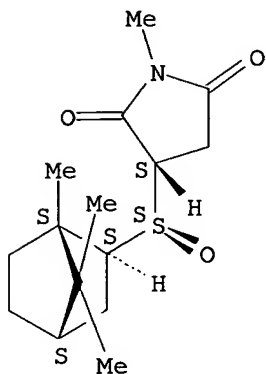
RN 321546-73-0 HCAPLUS

CN 2-Naphthalenecarboxamide, 1-hydroxy-4-[(1-methyl-2,5-dioxo-3-pyrrolidinyl)thio]-N-[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]- (9CI) (CA INDEX NAME)



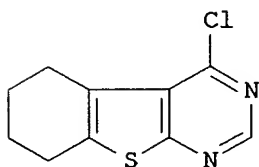
- L5 ANSWER 3 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1999:767766 HCAPLUS  
 DN 132:137246  
 TI Diels-Alder reactions of enantiopure [(1S)-isoborneol-10-sulfinyl]- and [(1S-exo)-2-bornylsulfinyl]vinylcyclohexenes with maleimides  
 AU Aversa, Maria C.; Barattucci, Anna; Bonaccorsi, Paola; Giannetto, Placido; Nicolo, Francesco; Rizzo, Simona  
 CS Dipartimento di Chimica organica e biologica, Chimica analitica e Chimica fisica, Universita degli Studi di Messina, Messina, 98166, Italy  
 SO Tetrahedron: Asymmetry (1999), 10(20), 3907-3917  
 CODEN: TASYE3; ISSN: 0957-4166  
 PB Elsevier Science Ltd.  
 DT Journal  
 LA English  
 OS CASREACT 132:137246  
 AB Uncatalyzed cycloaddns. of enantiopure [(1S)-isoborneol-10-sulfinyl]- and [(1S-exo)-2-bornylsulfinyl]vinylcyclohexenes with N-phenylmaleimide occur with good facial diastereoselectivity, controlled by the sulfur configuration, even if the extent of this stereoselection appears influenced by the structural features of the terpene residue directly linked to the sulfoxide moiety. Complete endo diastereoselectivity is observed in LiClO<sub>4</sub> catalyzed cycloaddns. of (RS)-1-{1-[(1S)-isoborneol-10-sulfinyl]vinyl}cyclohexene and (SS)-1-{1-[(1S-exo)-2-bornylsulfinyl]vinyl}cyclohexene (I). The Diels-Alder reactivity of I and (SS,E)-1-{2-[(1S-exo)-2-bornylsulfinyl]vinyl}cyclohexene (II) with the chiral auxiliary being in a different position with respect to the diene moiety, is also compared, and the results obtained confirm that 1-sulfinyl dienes are less reactive than 2-sulfinyl dienes. SnCl<sub>4</sub> catalyzed cycloaddn. of II with N-methylmaleimide is also performed.  
 IT **256512-85-3P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (Diels-Alder reactions of enantiopure [(1S)-isoborneol-10-sulfinyl]- and [(1S-exo)-2-bornylsulfinyl]vinylcyclohexenes with maleimides)  
 RN 256512-85-3 HCAPLUS  
 CN 2,5-Pyrrolidinedione, 1-methyl-3-[(S)-[(1S,2S,4S)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl]sulfinyl]-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1999:649974 HCAPLUS  
DN 132:134597  
TI Activity of some new sulfur compounds bearing tetrahydrobenzo[b]thieno[2,3-d] pyrimidine moiety on non-irradiated and irradiated *Bacillus cereus*  
AU Heiba, H. I.; Ghorab, M. M.; Amin, N. E.; El-Hifnawi, H. N.  
CS Department of Drug Radiation Research, National Center for Radiation Research and Technology, Cairo, Egypt  
SO Egyptian Journal of Biotechnology (1998), 4, 46-57  
CODEN: EJBIF7; ISSN: 1110-6093  
PB Egyptian Society for Biotechnology  
DT Journal  
LA English  
GI



I

AB Several new heterocyclic systems bearing sulfur-containing tetrahydrobenzo[b]thieno[2,3-d]pyrimidine moiety have been prepared. Several of them showed remarkable activity against growth of non-irradiated *Bacillus cereus* compared with the standard antimicrobial agents flucanox (Amoxycillin-flucloxacillin) and septazole (Trimethoprim-sulphamethoxazole). The chlorothienopyrimidine I exhibited higher activity against radioresistant *Bacillus cereus*.  
IT 256956-75-9P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological

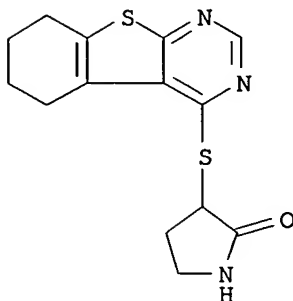


study); PREP (Preparation)

(preparation of benzo[b]thienopyrimidines and activity against non-resistant and radioresistant *Bacillus cereus*)

RN 256956-75-9 HCAPLUS

CN 2-Pyrrolidinone, 3-[(5,6,7,8-tetrahydro[1]benzothieno[2,3-d]pyrimidin-4-yl)thio]- (9CI) (CA INDEX NAME)



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:442297 HCAPLUS

DN 127:156255

TI Synthesis and structure-activity relationships of a novel oral carbapenem, CS-834

AU Miyauchi, Masao; Endo, Rokuro; Hisaoka, Masafumi; Yasuda, Hiroshi; Kawamoto, Isao

CS Research Laboratories, Sankyo Co., Ltd., Shinagawaku, 140, Japan

SO Journal of Antibiotics (1997), 50(5), 429-439

CODEN: JANTAJ; ISSN: 0021-8820

PB Japan Antibiotics Research Association

DT Journal

LA English

OS CASREACT 127:156255

AB The authors have studied an ester prodrug of a carbapenem to develop a potent orally active  $\beta$ -lactam antibiotic. A variety of 1 $\beta$ -methylcarbapenem derivs. have been synthesized. The authors have found that some derivs. having an amide group in the C-2 side chain show potent and well balanced antibacterial activities as well as high stability against dehydropeptidase-I. Oral absorption of derivs. has been optimized by modifying the C-3 ester promoiety. Pivaloyloxymethyl (1R,5S,6S)-6[(R)-1-hydroxyethyl]-1-methyl-2-[(R)-5-oxopyrrolidin-3-ylthio]-1-carbapen-2-em-3-carboxylate, CS-834, has been selected as the most promising compound for further evaluation.

IT 193811-22-2

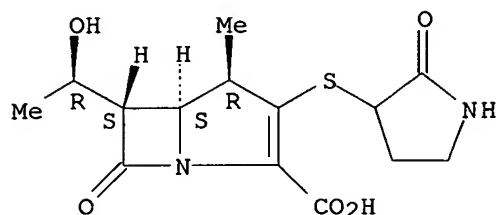
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (synthesis and antibacterial structure-activity relationships of a novel oral carbapenem CS-834 in relation to stability to dehydropeptidase-I and ester prodrug development)

RN 193811-22-2 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, monosodium salt,

[4R-[4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]-[partial]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Na

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1997:15490 HCAPLUS  
DN 126:60367  
TI Preparation of aryloxy- and arylthioglutamic acids as excitatory amino acid receptor antagonists  
IN Heinz, Lawrence J.; Lunn, William H. W.; Schoepp, Darryle D.  
PA Eli Lilly and Company, USA  
SO U.S., 31 pp., Cont.-in-part of U.S. Ser. No. 161,830, abandoned.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5576323	A	19961119	US 1994-322632	19941013 <--
	ZA 9409405	A	19960528	ZA 1994-9405	19941128 <--
	CA 2136904	AA	19950604	CA 1994-2136904	19941129 <--
	NO 9404578	A	19950606	NO 1994-4578	19941129 <--
	AU 9479151	A1	19950608	AU 1994-79151	19941130 <--
	AU 676781	B2	19970320		
	BR 9404809	A	19950801	BR 1994-4809	19941201 <--
	FI 9405704	A	19950604	FI 1994-5704	19941202 <--
	EP 658539	A1	19950621	EP 1994-308949	19941202 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	HU 69181	A2	19950828	HU 1994-3469	19941202 <--
	CN 1108240	A	19950913	CN 1994-119360	19941202 <--
	JP 07267908	A2	19951017	JP 1994-299390	19941202 <--
	US 5843997	A	19981201	US 1996-626447	19960402 <--
PRAI	US 1993-161830	B2	19931203		
	US 1994-322632	A	19941013		

OS MARPAT 126:60367

AB Novel compds. R3pX3mX2sX1nCH(CO2R2)(CH2)rCH(NH2)CO2R1 [R1, R2 = H, protective group, R3, X2 = (un)substituted aryl or heterocyclyl group, X1 = NH2 or substituted amino, O, S, X3 = alkylene, alkenediyl, oxoalkylene, oxyalkylene, etc., m, n, s = 0, 1, p = 0-3, q = 0-6, r = 1, 2] or their pharmaceutically acceptable salts were prepared as antagonists of excitatory amino acid receptors. Thus, Me 3-hydroxy-2-pyrrolidone-5-carboxylate was

prepared in 4 steps from cyclopentadiene and benzyl N-hydroxycarbamate and etherified with phenol and treated with LiOH in H<sub>2</sub>O-THF to afford 4-phenoxyglutamic acid. The latter at 10  $\mu$ M concentration gave 88.0% displacement of 3H-glutamate binding from rat brain cell membranes. Formulation containing the title compds. are given.

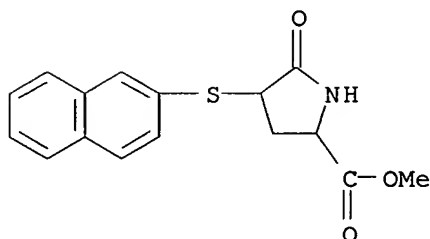
IT 170012-58-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of aryloxy- and arylthioglutamic acids as excitatory amino acid receptor antagonists)

RN 170012-58-5 HCAPLUS

CN Proline, 4-(2-naphthalenylthio)-5-oxo-, methyl ester (9CI) (CA INDEX NAME)



L5 ANSWER 7 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1996:642931 HCAPLUS

DN 125:278267

TI Monosuccinimides as additives in the sulfur vulcanization of rubber

AU Anon.

CS UK

SO Research Disclosure (1996), 390, P 656 (No. 39024)

CODEN: RSDSBB; ISSN: 0374-4353

PB Kenneth Mason Publications Ltd.

DT Journal; Patent

LA English

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RD 390024		19961010		

PI RD 390024

19961010

PRAI RD 1996-390024 19961010

OS MARPAT 125:278267

AB Succinimide derivs. are used to impart antireversion, antifatigue, reduced heat buildup, and/or accelerating activity to S-vulcanized rubber. Examples are given with natural rubber using 1 phr 1-phenyl-3-(2-mercaptobenzothiazolyl)succinimide, 1-phenyl-3-(2-dibenzylthiocarbamoyl)succinimide, or 4-bromo-1-phenyl-3-(2-dibenzylthiocarbamoyl)succinimide. The succinimides provided an antireversion and accelerating effect and reduced heat buildup without having an adverse effect on other rubber properties.

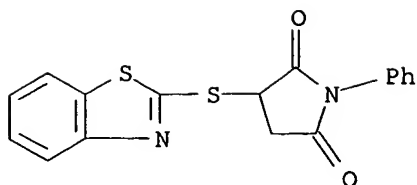
IT 182752-62-1, 3-(2-Mercaptobenzothiazolyl)-1-phenylsuccinimide

RL: CAT (Catalyst use); MOA (Modifier or additive use); USES (Uses)

(monosuccinimides as additives in the sulfur vulcanization of rubber)

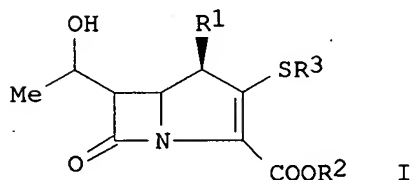
RN 182752-62-1 HCAPLUS

CN 2,5-Pyrrolidinedione, 3-(2-benzothiazolylthio)-1-phenyl- (9CI) (CA INDEX NAME)



L5 ANSWER 8 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1996:401622 HCAPLUS  
 DN 125:86293  
 TI Preparation of carbapenem derivatives as antibacterials  
 IN Nakagawa, Susumu; Fukatsu, Hiroshi; Kato, Yoshiaki; Sato, Yuichi;  
 Kanesaka, Tomoyasu  
 PA Banyu Pharmaceutical Co., Ltd., Japan  
 SO PCT Int. Appl., 33 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9607655	A1	19960314	WO 1995-JP1756	19950904 <--
	W: AU, CA, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9645960	A1	19960327	AU 1996-45960	19950904 <--
PRAI	JP 1994-238484	A	19940906		
	JP 1995-72280	A	19950306		
	WO 1995-JP1111	A	19950606		
	WO 1995-JP1756	W	19950904		
OS	MARPAT 125:86293				
GI					



AB Novel title compds. I [R1 represents hydrogen or lower alkyl; R2 represents hydrogen, ester residue or alkali metal; and R3 represents oxo- or thioxopiperidinyl or oxo- or thioxopyrrolidinyl] are prepared I have potent antibacterial activity against gram-pos. and gram-neg. bacteria including MRSA, an excellent resistance against  $\beta$ -lactamases and DHD-1 and a safety for the central nervous system, thus being useful as an antibacterial. 5-Mercapto-2-pyridinone (also prepared) was reacted with p-nitrobenzyl (1R,5R,6S)-2-diphenylphosphoryloxy-6-[(1R)-1-hydroxyethyl]-1-methyl-1-carbapen-2-em-3-carboxylate in MeCN overnight with ice cooling to give, after deprotection and column chromatog. over LC-SORB SP-B-ODS using water-methanol as the solvent, the diastereomers of I [R1 = Me, R2 = Na, R3 = 6-oxo-3-piperidinyl]. In an in vitro study, the more polar of the

two diastereomers had an IC<sub>50</sub> of 0.025  $\mu$ M against *Staphylococcus aureus*.

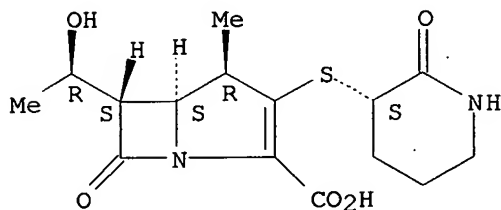
IT 178322-48-0P 178322-49-1P 178455-94-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of carbapenem derivs. as antibacterials)

RN 178322-48-0 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-piperidinyl)thio]-, monosodium salt, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

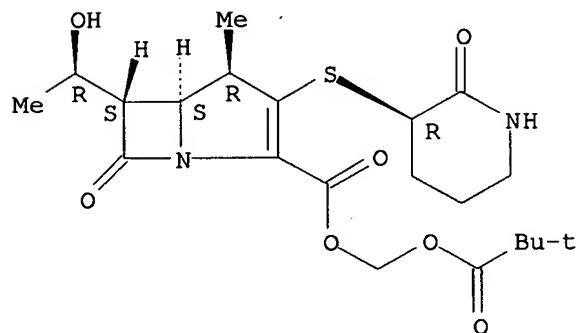


● Na

RN 178322-49-1 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-piperidinyl)thio]-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI)  
(CA INDEX NAME)

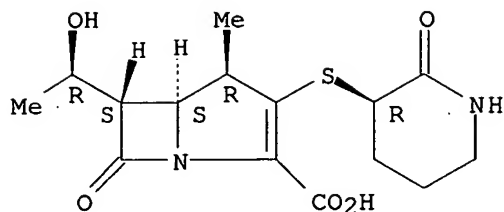
Absolute stereochemistry.



RN 178455-94-2 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-piperidinyl)thio]-, monosodium salt, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Na

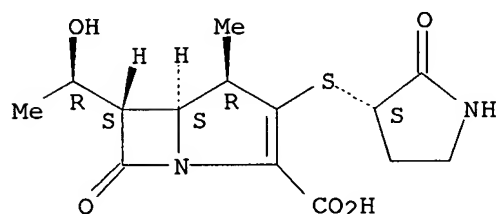
IT 178456-09-2P 178456-10-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation of carbapenem derivs. as antibacterials)

RN 178456-09-2 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, monosodium salt, [4R-[3(S\*), 4 $\alpha$ , 5 $\beta$ , 6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

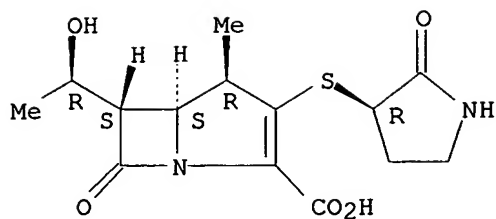


● Na

RN 178456-10-5 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, monosodium salt, [4R-[3(R\*), 4 $\alpha$ , 5 $\beta$ , 6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Na

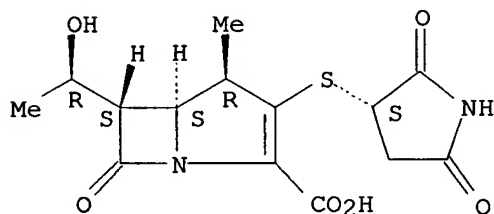
IT 178322-61-7P 178322-62-8P 178322-63-9P  
 178322-64-0P 178322-65-1P 178322-66-2P  
 178322-67-3P 178322-68-4P 178322-69-5P  
 178322-70-8P 178322-76-4P 178455-98-6P  
 178455-99-7P 178456-00-3P 178456-01-4P  
 178456-02-5P 178456-03-6P 178456-04-7P  
 178456-05-8P 178456-06-9P 178456-07-0P  
 178456-08-1P 178456-16-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of carbapenem derivs. as antibacterials)

RN 178322-61-7 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[(2,5-dioxo-3-pyrrolidinyl)thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-, monosodium salt, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

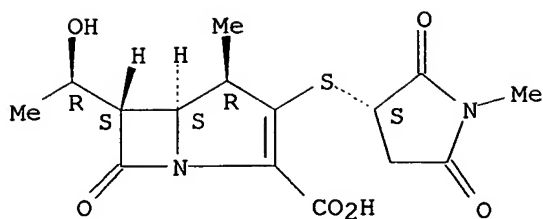


● Na

RN 178322-62-8 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-3-[(1-methyl-2,5-dioxo-3-pyrrolidinyl)thio]-7-oxo-, monosodium salt, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

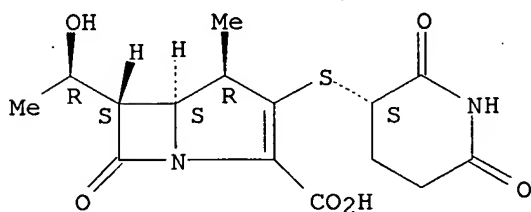


● Na

RN 178322-63-9 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[(2,6-dioxo-3-piperidinyl)thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-, monosodium salt, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

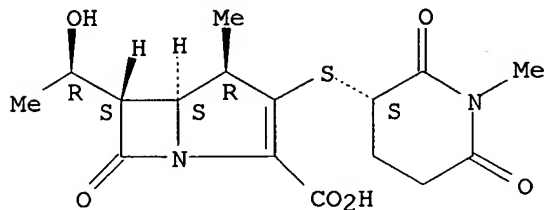


● Na

RN 178322-64-0 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-3-[(1-methyl-2,6-dioxo-3-piperidinyl)thio]-7-oxo-, monosodium salt, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



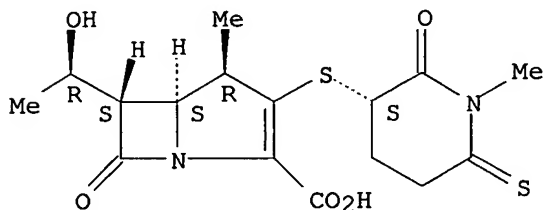
● Na

RN 178322-65-1 HCAPLUS



CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-3-[(1-methyl-2-oxo-6-thioxo-3-piperidinyl)thio]-7-oxo-, monosodium salt, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

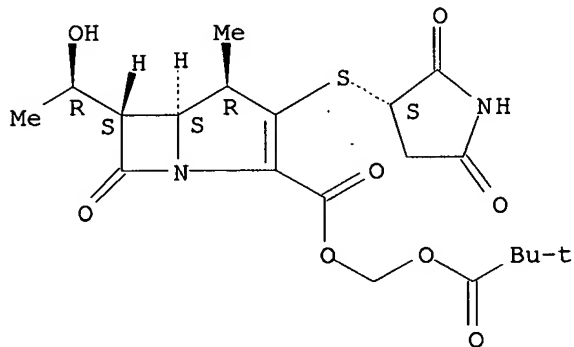
Absolute stereochemistry.



● Na

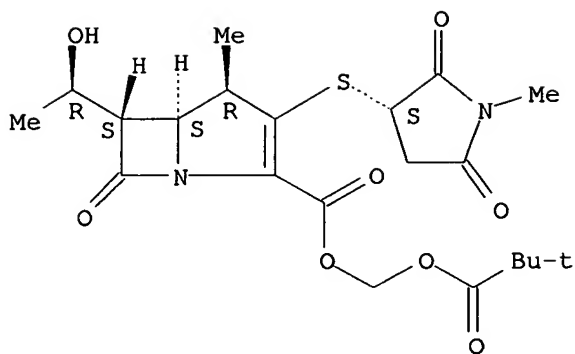
RN 178322-66-2 HCAPLUS  
CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[(2,5-dioxo-3-pyrrolidinyl)thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 178322-67-3 HCAPLUS  
CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-3-[(1-methyl-2,5-dioxo-3-pyrrolidinyl)thio]-7-oxo-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

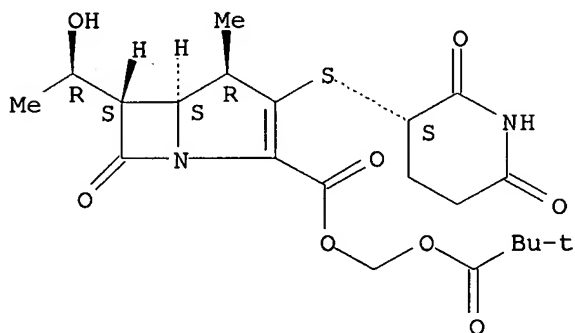
Absolute stereochemistry.



RN 178322-68-4 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[(2,6-dioxo-3-piperidiny)thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI)  
(CA INDEX NAME)

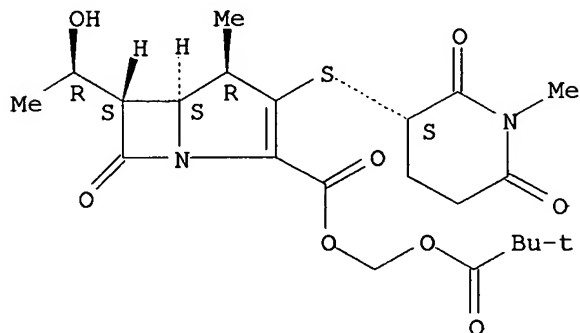
Absolute stereochemistry.



RN 178322-69-5 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-3-[(1-methyl-2,6-dioxo-3-piperidiny)thio]-7-oxo-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

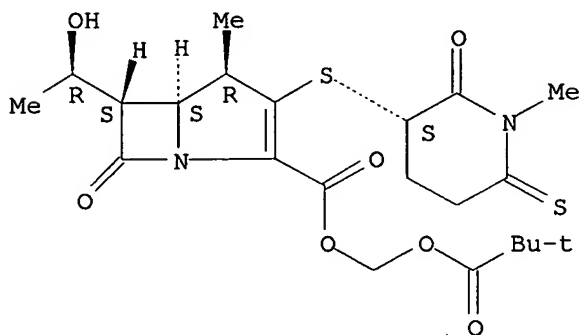
Absolute stereochemistry.



RN 178322-70-8 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-3-[(1-methyl-2-oxo-6-thioxo-3-piperidinyl)thio]-7-oxo-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$  a.(R\*)]]- (9CI) (CA INDEX NAME)

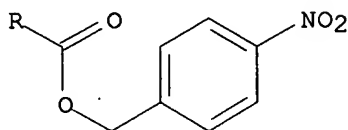
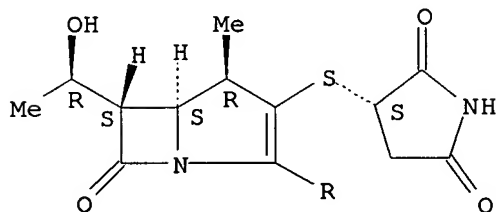
Absolute stereochemistry.



RN 178322-76-4 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[(2,5-dioxo-3-pyrrolidinyl)thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-, (4-nitrophenyl)methyl ester, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

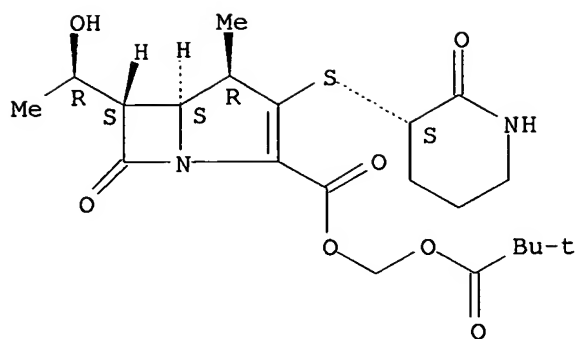
Absolute stereochemistry.



RN 178455-98-6 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-piperidinyl)thio]-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

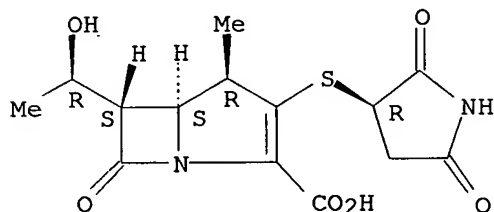
Absolute stereochemistry.



RN 178455-99-7 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[(2,5-dioxo-3-pyrrolidinyl)thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-, monosodium salt, [4R-[3(R\*),4α,5β,6β(R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

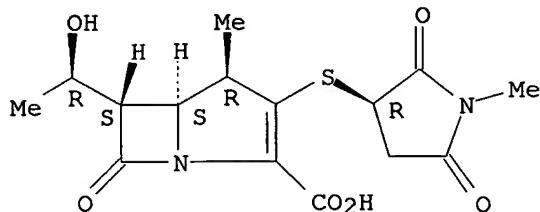


● Na

RN 178456-00-3 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-3-[(1-methyl-2,5-dioxo-3-pyrrolidinyl)thio]-7-oxo-, monosodium salt, [4R-[3(R\*),4α,5β,6β(R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

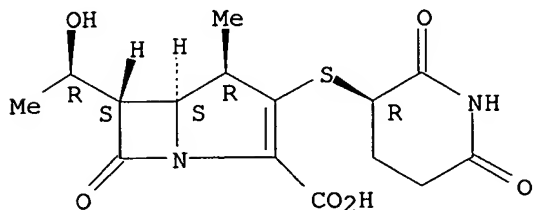


● Na

RN 178456-01-4 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[(2,6-dioxo-3-piperidiny1)thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-, monosodium salt, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

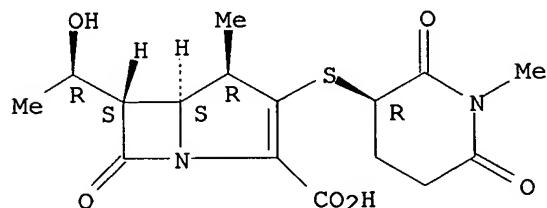


● Na

RN 178456-02-5 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-3-[(1-methyl-2,6-dioxo-3-piperidiny1)thio]-7-oxo-, monosodium salt, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

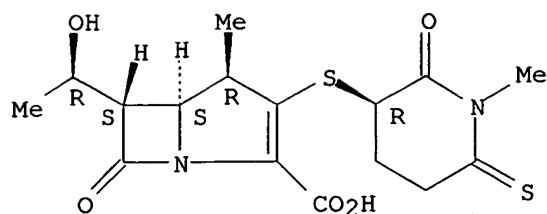


● Na

RN 178456-03-6 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-3-[(1-methyl-2-oxo-6-thioxo-3-piperidiny1)thio]-7-oxo-, monosodium salt, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

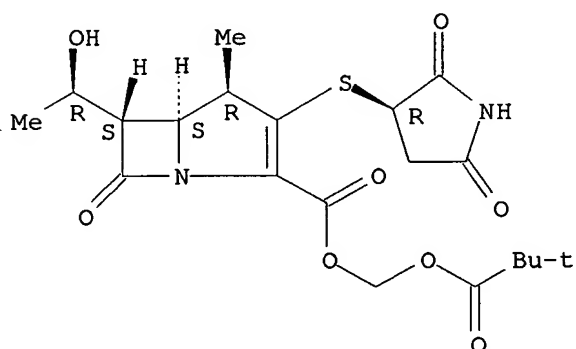


● Na

RN 178456-04-7 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[(2,5-dioxo-3-pyrrolidinyl)thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6.beta.(R\*)]]- (9CI) (CA INDEX NAME)

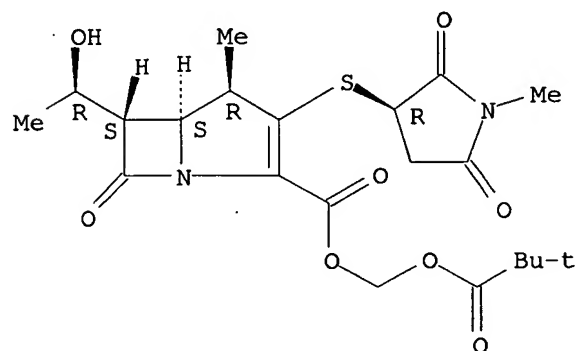
Absolute stereochemistry.



RN 178456-05-8 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-3-[(1-methyl-2,5-dioxo-3-pyrrolidinyl)thio]-7-oxo-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6.beta.(R\*)]]- (9CI) (CA INDEX NAME)

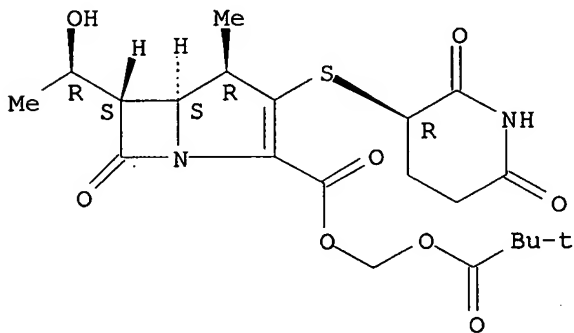
Absolute stereochemistry.



RN 178456-06-9 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[(2,6-dioxo-3-piperidinyl)thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI)  
(CA INDEX NAME)

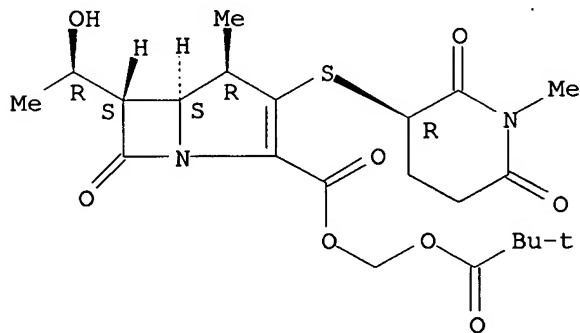
Absolute stereochemistry.



RN 178456-07-0 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-3-[(1-methyl-2,6-dioxo-3-piperidinyl)thio]-7-oxo-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

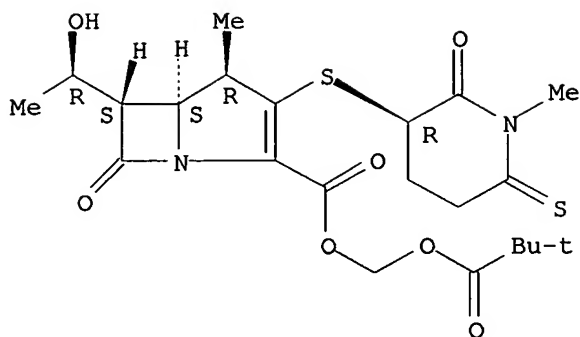
Absolute stereochemistry.



RN 178456-08-1 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-3-[(1-methyl-2-oxo-6-thioxo-3-piperidinyl)thio]-7-oxo-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

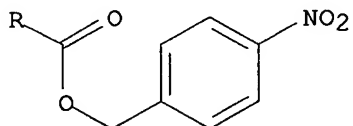
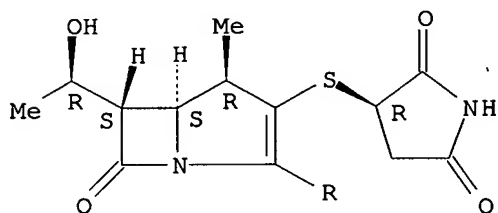
Absolute stereochemistry.



RN 178456-16-1 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[(2,5-dioxo-3-pyrrolidinyl)thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-, (4-nitrophenyl)methyl ester, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 178322-75-3P 178456-15-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

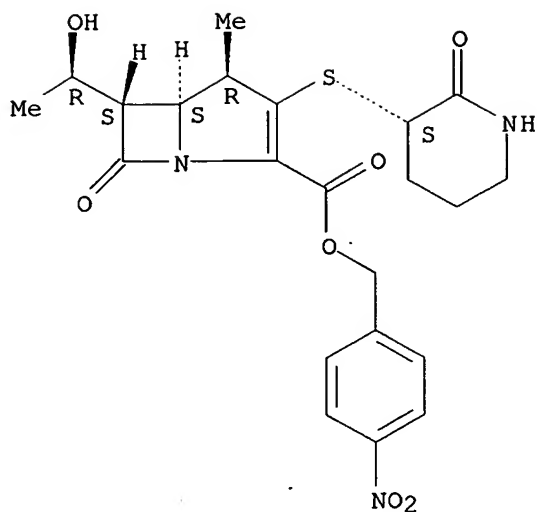
(preparation of carbapenem derivs. as antibacterials)

RN 178322-75-3 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-piperidinyl)thio]-, (4-nitrophenyl)methyl ester, [4R-[3(S\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

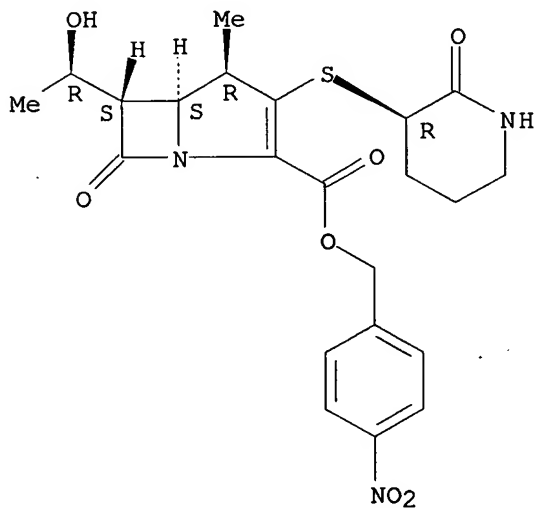




RN 178456-15-0 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-piperidinyl)thio]-, (4-nitrophenyl)methyl ester, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 9 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1995:905329 HCAPLUS

DN 123:314527

TI Preparation of aryloxyglutamates and related compounds as excitatory amino acid receptor antagonists.

IN Heinz, Lawrence J.; Lunn, William Henry Walker; Schoepp, Darryle Darwin

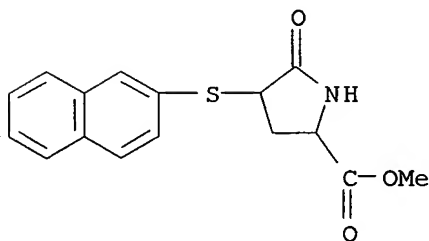
PA Eli Lilly and Co., USA

SO Eur. Pat. Appl., 52 pp.

CODEN: EPXXDW

DT Patent  
LA English  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 658539	A1	19950621	EP 1994-308949	19941202 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	US 5576323	A	19961119	US 1994-322632	19941013 <--
PRAI	US 1993-161830	A	19931203		
	US 1994-322632	A	19941013		
OS	CASREACT 123:314527; MARPAT 123:314527				
AB	H <sub>2</sub> NCH(CO <sub>2</sub> R <sub>3</sub> )(CH <sub>2</sub> ) <sub>r</sub> CH(CO <sub>2</sub> R <sub>4</sub> )Zn(R <sub>1</sub> )sWm(R <sub>2</sub> )p [Z = NR <sub>5</sub> , O, S; W = CH <sub>3</sub> -p, (CH <sub>2</sub> ) <sub>q</sub> , CH:CHCO, (CH <sub>2</sub> ) <sub>q</sub> O, NR <sub>5</sub> , O, S, SO, SO <sub>2</sub> , etc.; m, n, s = 0, 1; p = 0-3; q = 0-6; r = 1, 2; m + n + p + s ≥ 1; R <sub>1</sub> , R <sub>2</sub> = (substituted) aryl, heterocyclyl; R <sub>3</sub> , R <sub>4</sub> = H, protecting group; R <sub>5</sub> = H, alkyl, acyl, alkylsulfonyl; with provisos], were prepared Thus, Me 3-hydroxy-2-pyrrolidone-5-carboxylate (preparation given) was treated with Ph <sub>3</sub> P, 2-naphthalenethiol, and di-Et azodicarboxylate in THF at 0° to give Me 3-(2-naphthalenethio)-2-pyrrolidone-5-carboxylate. The latter was treated with LiOH in THF/H <sub>2</sub> O to give 3-(2-naphthalenethio)glutamic acid. This at 100 μM gave 100.6% displacement of [3H]-Glu from crude rat forebrain membrane preps.				
IT	<b>170012-58-5P</b> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of aryloxyglutamates and related compds. as excitatory amino acid receptor antagonists)				
RN	170012-58-5 HCAPLUS				
CN	Proline, 4-(2-naphthalenylthio)-5-oxo-, methyl ester (9CI) (CA INDEX NAME)				

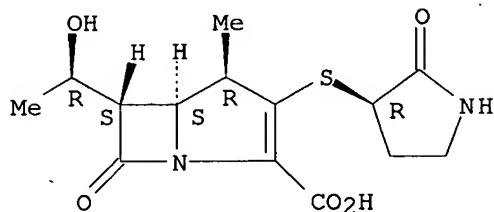


L5 ANSWER 10 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1992:612225 HCAPLUS  
DN 117:212225  
TI 2-(2-Oxopyrroldin-3-ylthio)-6-(1-hydroxyethyl)-1-methylcarbapen-2-em-3-carboxylic acid pivaloyloxymethyl ester  
IN Iwasaki, Tameo; Kondo, Kazuhiko; Horikawa, Koji; Matsushita, Tadahiro; Yamaguchi, Totaro  
PA Tanabe Seiyaku K. K., Japan  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 04103584 A2 19920406 JP 1990-218955 19900822 <--  
 PRAI JP 1990-218955 19900822  
 AB Title compound (I), resistant to gram-pos. and gram-neg. bacteria and particularly to cephem-resistant bacteria, is prepared Thus, (3R)-3-hydroxypyrrolidin-2-one was tosylated, treated with K thioacetate, and hydrolyzed to give (3R)-3-mercaptopyrrolidin-2-one, which was treated with di-Ph phosphorochloridate-activated (1R,3R,5R,6S)-6-[(1R)-1-hydroxyethyl]-1-methyl-2-oxocarbapenam-3-carboxylic acid p-nitrobenzyl ester to give (1R,5S,6S)-2-[(3R)-2-oxopyrrolidin-3-ylthio]-6-[(1R)-1-hydroxyethyl]-1-methylcarbapen-2-em-3-carboxylic acid p-nitrobenzyl ester (II). Deprotection of II by H over Pd/C in the presence of KHCO<sub>3</sub> gave the corresponding K salt, which was treated with pivaloyloxymethyl iodide to give (1R,5S,6S)-2-[(3R)-2-oxopyrrolidin-3-ylthio]-6-[(1R)-1-hydroxyethyl]-1-methylcarbapen-2-em-3-carboxylic acid pivaloyloxymethyl ester.  
 IT **143492-66-4P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and condensation of, with pivaloyloxymethyl iodide)  
 RN 143492-66-4 HCAPLUS  
 CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, monopotassium salt, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

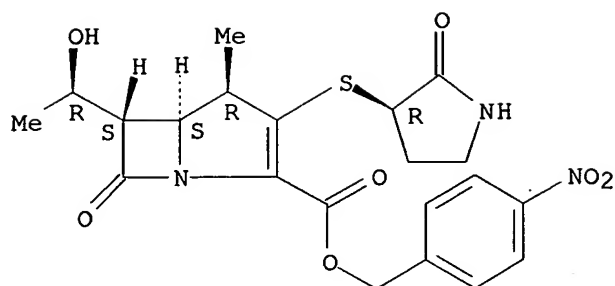
Absolute stereochemistry.



● K

IT **143456-50-2P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and deprotection of, by hydrogen over palladium/carbon in presence of potassium hydrogencarbonate)  
 RN 143456-50-2 HCAPLUS  
 CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, (4-nitrophenyl)methyl ester, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



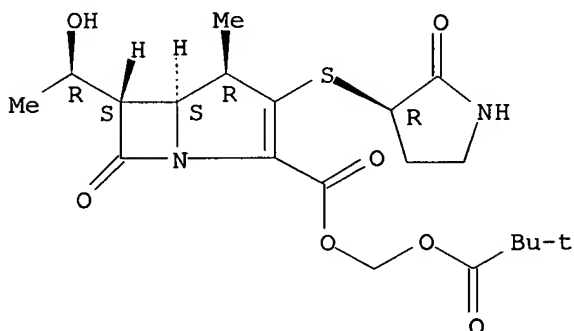
IT 143456-51-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation of, as bactericide)

RN 143456-51-3 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, (2,2-dimethyl-1-oxopropoxy)methyl ester, [4R-[3(R\*),4 $\alpha$ ,5 $\beta$ ,6 $\beta$ (R\*)]]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 11 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1992:448213 HCAPLUS

DN 117:48213

TI Preparation of cephalosporin derivatives and their homologs

IN Gasson, Brian Charles; Hinks, Jeremy David; Burton, George

PA Beecham Group PLC, UK

SO PCT Int. Appl., 78 pp.

CODEN: PIXXD2

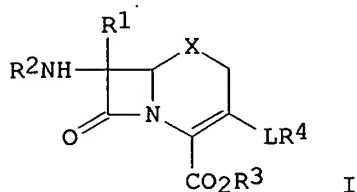
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9204353	A1	19920319	WO 1991-GB1534	19910909 <--
	W: AU, CA, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	AU 9185331	A1	19920330	AU 1991-85331	19910909 <--

EP 548186	A1	19930630	EP 1991-916416	19910909 <--
EP 548186	B1	19970305		
R: BE, CH, DE, FR, GB, IT, LI, NL				
JP 06500788	T2	19940127	JP 1991-515532	19910909 <--
JP 2851429	B2	19990127		
PRAI GB 1990-19743	A	19900910		
WO 1991-GB1534	A	19910909		
OS MARPAT 117:48213				
GI				



AB Title compds. I [R1 = H, MeO, HCONH; R2 = acyl, R3O2C, wherein R3 = carboxylate anion, removable carboxy protecting group; L = HC:, (CH2)n, (CH2)xY(CH2)y wherein n, x, y = 0, 1; Y = S, O; R4 =  $\gamma$ -,  $\delta$ -thiolactone or lactam optionally containing 1-2 endocyclic double bonds and optionally substituted; X = S, O, CH2, SO, SO2], useful as antibacterials, are prepared Thioretetronic acid previously treated with P2S5 was dissolved in dioxan, warmed to 80°, and stirred for 2 h to give 2,5-dihydro-4-mercaptothiophen-2-one which in CH2Cl2 was treated with diphenylmethyl (6R,7R)-3-(chloromethyl)-7-phenylacetamidoceph-3-em-4-carboxylate to give after workup diphenylmethyl (6R,7R)-3-(2,5-dihydro-2-oxothien-4-yl)thiomethyl]-7-phenylacetamidoceph-3-em-4-carboxylate (II). II was converted in 3 steps to I [R1 = H, R2 = 7-[2-(2-aminothiazol-4-yl)-2-(Z)-methoxyiminoacetyl], R3 = Na, L = H2C, R4 = (2,5-dihydro-2-oxothien-4-yl)thio] (II). The min. inhibitory concentration of II against Escherichia coli and Staphylococcus aureus was  $\leq 0.03$  and 0.25  $\mu\text{g/mL}$ , resp.

IT **141998-71-2P 141998-72-3P 142079-10-5P**

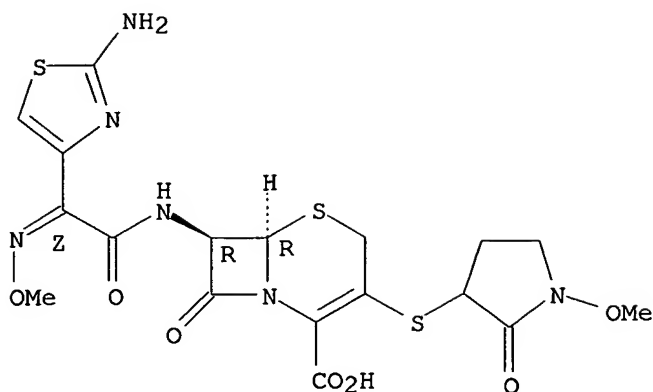
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation of, as antibacterial)

RN 141998-71-2 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[[(2-amino-4-thiazolyl)(methoxyimino)acetyl]amino]-3-[(1-methoxy-2-oxo-3-pyrrolidinyl)thio]-8-oxo-, monosodium salt, [6R-[6 $\alpha$ ,7 $\beta$ (Z)]]-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



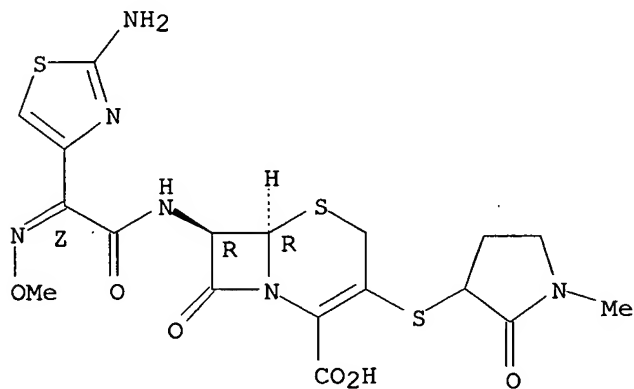
● Na

RN 141998-72-3 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
 7-[[ (2-amino-4-thiazolyl) (methoxyimino) acetyl] amino]-3-[(1-methyl-2-oxo-3-pyrrolidinyl) thio]-8-oxo-, monosodium salt, [6R-[6 $\alpha$ ,7 $\beta$ (Z)]]-  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



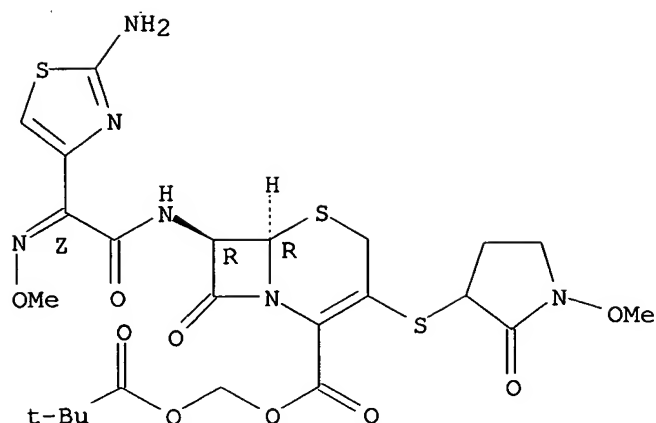
● Na

RN 142079-10-5 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
 7-[[ (2-amino-4-thiazolyl) (methoxyimino) acetyl] amino]-3-[(1-methoxy-2-oxo-3-pyrrolidinyl) thio]-8-oxo-, (2,2-dimethyl-1-oxopropoxy) methyl ester,  
 [6R-[6 $\alpha$ ,7 $\beta$ (Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



IT 142079-15-0P 142079-16-1P 142079-17-2P

142079-18-3P 142079-19-4P 142079-20-7P

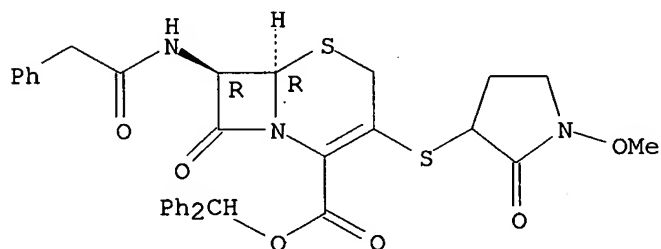
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as intermediate in preparation of cephalosporin derivs.)

RN 142079-15-0 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
3-[(1-methoxy-2-oxo-3-pyrrolidinyl)thio]-8-oxo-7-[(phenylacetyl)amino]-,  
diphenylmethyl ester, [6R-(6 $\alpha$ ,7 $\beta$ )]- (9CI) (CA INDEX NAME)

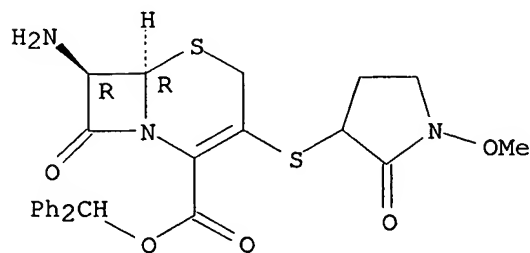
Absolute stereochemistry.



RN 142079-16-1 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-amino-3-[(1-methoxy-2-oxo-3-pyrrolidinyl)thio]-8-oxo-, diphenylmethyl  
ester, [6R-(6 $\alpha$ ,7 $\beta$ )]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

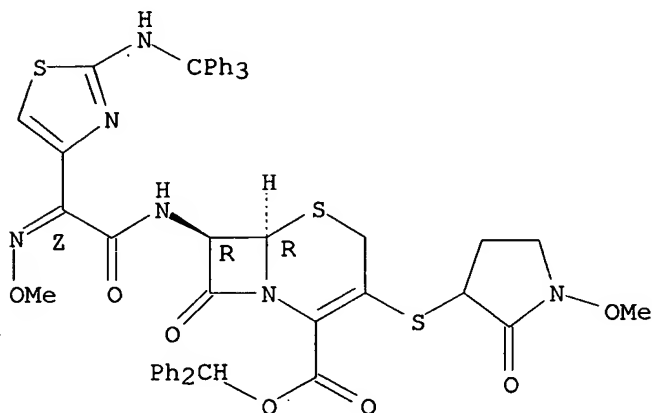


RN 142079-17-2 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
 7-[[ (methoxyimino) [2-[(triphenylmethyl) amino]-4-thiazolyl] acetyl] amino]-3-  
 [(1-methoxy-2-oxo-3-pyrrolidinyl) thio]-8-oxo-, diphenylmethyl ester,  
 [6R-[6 $\alpha$ ,7 $\beta$ (Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

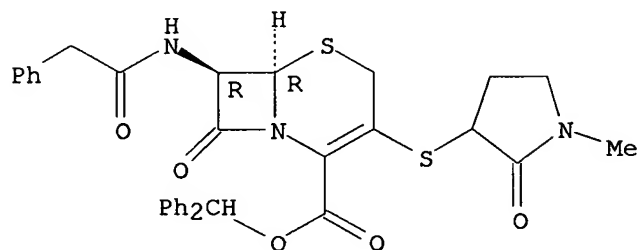
Double bond geometry as shown.



RN 142079-18-3 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
 3-[(1-methyl-2-oxo-3-pyrrolidinyl) thio]-8-oxo-7-[(phenylacetyl) amino]-,  
 diphenylmethyl ester, [6R-(6 $\alpha$ ,7 $\beta$ )]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

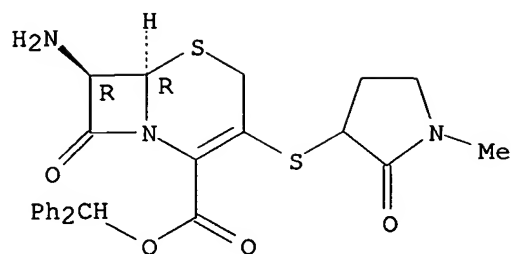


RN 142079-19-4 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
 7-amino-3-[(1-methyl-2-oxo-3-pyrrolidinyl) thio]-8-oxo-, diphenylmethyl  
 ester, [6R-(6 $\alpha$ ,7 $\beta$ )]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

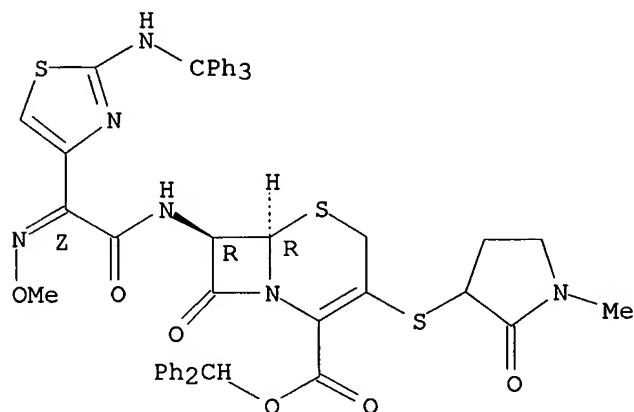




RN 142079-20-7 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid,  
7-[[[(methoxyimino)[2-[(triphenylmethyl)amino]-4-thiazolyl]acetyl]amino]-3-  
[(1-methyl-2-oxo-3-pyrrolidinyl)thio]-8-oxo-, diphenylmethyl ester,  
[6R-[6 $\alpha$ ,7 $\beta$ (Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



L5 ANSWER 12 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1991:23685 HCAPLUS

DN 114:23685

TI Preparation of heterocyclylthiocephems as antibacterial agents

IN Hayano, Takeshi; Sasaki, Takashi

PA Daiichi Seiyaku Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

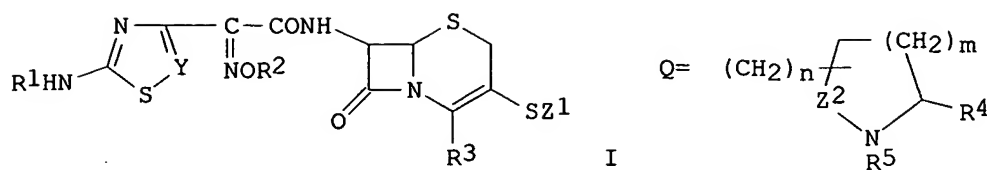
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02164883	A2	19900625	JP 1988-318133	19881216 <--
	JP 2723938	B2	19980309		
PRAI	JP 1988-318133		19881216		
OS	MARPAT 114:23685				
GI					



AB The title compds. I [Y = CH, N; R1 = H, amino-protecting group; R2 = (substituted) alkyl, H, etc.; R3 = (substituted), or (protected) carboxyl, carboxylate; R4 = H, (protected) carboxyl, etc.; R5 = H, alkyl, acyl, etc.; Z1 = Q; Z2 = CH2, CO, C:NH, etc.; n, m = 0-3] were prepared Reaction of benzhydryl 7β-[2-(2-tritylaminothiazol-4-yl)-2-methoxyiminoacetamido]-3-methanesulfonyloxy-3-cephem-4-carboxylate 1-sulfoxide with (2S,4S)-N-tert-butoxycarbonyl-2-carbamoyl-4-mercaptopyrrolidine in DMF containing diisopropylethylamine, followed by treatment with AcCl in the presence of KI in acetone containing DMF, deprotection in CF3CO2H/anisole, and treatment with HCO2H, gave (7β, syn)-I [R1 = H; Y = CH; R2 = Me; R3 = CO2H; Z1 = (2S, 4S)-2-carbamoylpyrrolidin-4-yl], which in vitro exhibited MIC of 1.56 μg/mL against *Staphylococcus aureus* 209P.

IT **131004-27-8P**

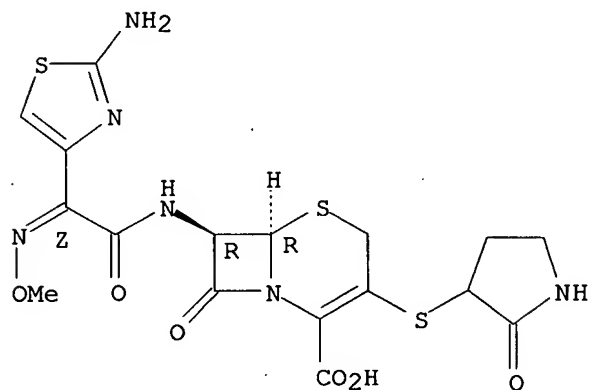
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation of, as antibacterial agent)

RN 131004-27-8 HCAPLUS

CN 5-Thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid, 7-[[[(2-amino-4-thiazolyl) (methoxyimino) acetyl] amino]-8-oxo-3-[(2-oxo-3-pyrrolidinyl) thio]-, monohydrochloride, [6R-[6α,7β(Z)]]- (9CI)  
(CA INDEX NAME)

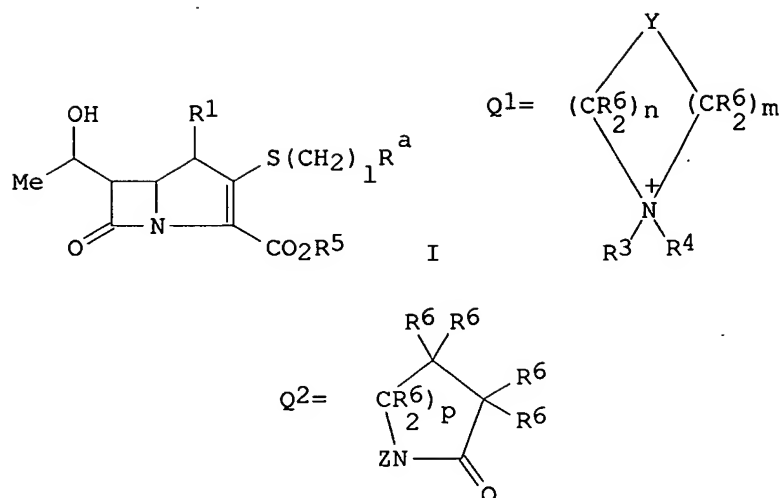
Absolute stereochemistry.

Double bond geometry as shown.



L5 ANSWER 13 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1990:571776 HCAPLUS  
 DN 113:171776  
 TI 2-(heterocyclylthio)carbapenem derivatives their preparation and their use  
 as antibiotics  
 IN Kawamoto, Isao; Tanaka, Teruo; Endo, Rokuro; Miyauchi, Masao; Iwata,  
 Masayuki  
 PA Sankyo Co., Ltd., Japan  
 SO Eur. Pat. Appl., 124 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 337637	A1	19891018	EP 1989-303216	19890331 <--
	EP 337637	B1	19941130		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	JP 02028180	A2	19900130	JP 1989-80768	19890330 <--
	JP 2752143	B2	19980518		
	DK 8901580	A	19891002	DK 1989-1580	19890331 <--
	DK 175029	B1	20040503		
	FI 8901572	A	19891002	FI 1989-1572	19890331 <--
	FI 91258	B	19940228		
	FI 91258	C	19940610		
	NO 8901364	A	19900208	NO 1989-1364	19890331 <--
	NO 168304	B	19911028		
	NO 168304	C	19920205		
	EP 597821	A1	19940518	EP 1994-100573	19890331 <--
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	ES 2067534	T3	19950401	ES 1989-303216	19890331 <--
	HU 50178	A2	19891228	HU 1989-1629	19890401 <--
	HU 204275	B	19911230		
	KR 133071	B1	19980417	KR 1989-4321	19890401 <--
	AU 8932386	A1	19891005	AU 1989-32386	19890403 <--
	AU 615729	B2	19911010		
	ZA 8902435	A	19901228	ZA 1989-2435	19890403 <--
	CA 1336092	A1	19950627	CA 1989-595556	19890403 <--
	JP 02049783	A2	19900220	JP 1989-115655	19890509 <--
	JP 07045499	B4	19950517		
	US 5104867	A	19920414	US 1990-540878	19900620 <--
	US 5242914	A	19930907	US 1992-831070	19920204 <--
	FI 9201681	A	19920414	FI 1992-1681	19920414 <--
	FI 92487	B	19940815		
	FI 92487	C	19941125		
	JP 07002856	A2	19950106	JP 1994-89382	19940427 <--
	KR 132907	B1	19980417	KR 1997-39082	19970816 <--
	DK 9801576	A	19981130	DK 1998-1576	19981130 <--
PRAI	JP 1988-80974	A	19880401		
	JP 1988-111640	A	19880510		
	EP 1989-303216	A3	19890331		
	FI 1989-1572	A	19890331		
	US 1989-332884	B1	19890403		
	JP 1989-115655		19890509		
	US 1990-540878	A3	19900620		
OS	MARPAT 113:171776				
GI					



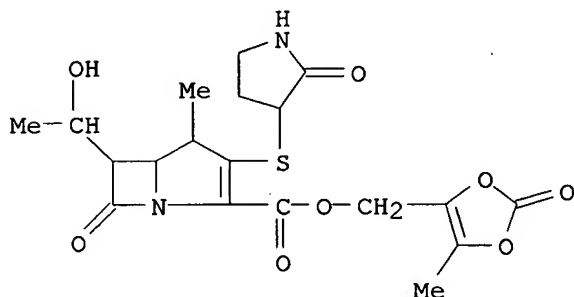
AB The title compds. I [R<sup>a</sup> = Q1, Q2; one of R6 is a bond.; one of R6 is R2 and the others of R6 are all H; R1 = H, Me; R2 = H, (substituted) alkyl, halo, OH, alkoxy, amino, alkanoylamino, etc.; Z = H, alkyl, alkanoyl; NR3R4 = (substituted) amino, heterocyclic; CO2R5 = carboxy, CO2-, etc.; l, m, n = 0-3, provided that m + n is an integer from 2 to 6; p = 0-2; Y = single bond, O, S, etc.], useful as antibiotics, were prepared (1R,5S,6S)-2-[(2S,4S)-2-Carbamoyl-1,1-dimethylpyrrolidinium-4-ylthio]-6-[(1R)-1-hydroxyethyl]-1-methyl-1-carbapen-2-em-3-carboxylate [prepared from (2S,4S)-2-carbamoyl-4-mercapto-1,1-dimethylpyrrolidinium salt and 4-nitrobenzyl (1R,5R,6S)-6-[(1R)-1-hydroxyethyl]-1-methyl-2-oxo-1-carbapenam-3-carboxylate] in vitro exhibited a min. inhibitory concentration of 0.01 µg/mL against *Staphylococcus aureus* 209.

IT 127422-99-5P 127475-00-7P

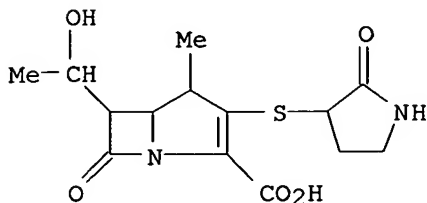
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation of, as antibiotic)

RN 127422-99-5 HCAPLUS

CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, (5-methyl-2-oxo-1,3-dioxol-4-yl)methyl ester (9CI) (CA INDEX NAME)

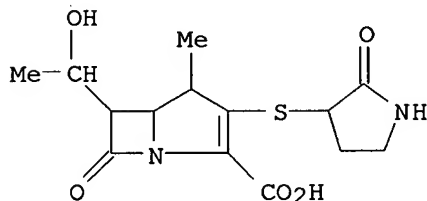


RN 127475-00-7 HCAPLUS  
 CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, monosodium salt (9CI) (CA INDEX NAME)



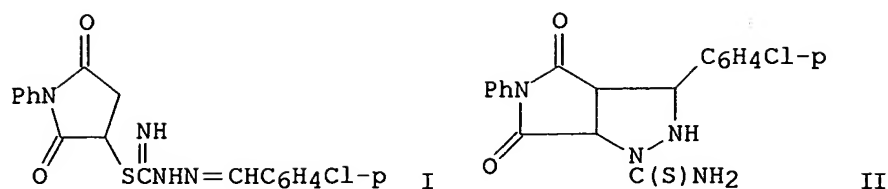
● Na

IT 127475-00-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, in preparation of antibiotic)  
 RN 127475-00-7 HCAPLUS  
 CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-4-methyl-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, monosodium salt (9CI) (CA INDEX NAME)



● Na

L5 ANSWER 14 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1989:135016 HCAPLUS  
 DN 110:135016  
 TI Reinvestigation of the reactions of thiosemicarbazones with maleimides  
 AU Badawy, Mohamed A.; Kadry, Azza M.; Abdel-Hady, Sayed A.; Ibrahim, Yehia A.  
 CS Fac. Sci., Cairo Univ., Giza, Egypt  
 SO Sulfur Letters (1988), 8(1), 43-54  
 CODEN: SULED2; ISSN: 0278-6117  
 DT Journal  
 LA English  
 OS CASREACT 110:135016  
 GI



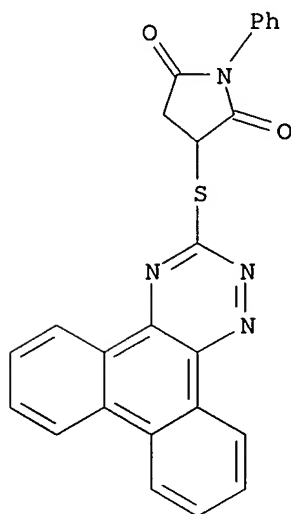
AB The addition reaction of thiosemicarbazones and N-arylmaleimides gives S-(N-aryl-2,5-dioxo-3-pyrrolidinyl)isothiosemicarbazones and not pyrrolidino[3,4-d]-1-thiocarboxamido-2,6-pyrazolidinediones as reported recently. E.g., p-ClC<sub>6</sub>H<sub>4</sub>CH:NNHC(S)NH<sub>2</sub> reacts with N-phenylmaleimide to give I, not II).

IT **119521-66-3P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 119521-66-3 HCAPLUS

CN 2,5-Pyrrolidinedione, 3-(phenanthro[9,10-e]-1,2,4-triazin-3-ylthio)-1-phenyl- (9CI) (CA INDEX NAME)



L5 ANSWER 15 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1988:473243 HCAPLUS

DN 109:73243

TI Preparation of antibacterial (5R, 6S, 8R)-6-(1-hydroxyethyl)-2-(3R-pyrrolidin-2-one-3-yl)thiopenen-3-carboxylic acid and pharmaceutical compositions containing it

IN McCombie, Stuart W.; Tagat, Jayaram R.

PA Schering Corp., USA

SO Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW

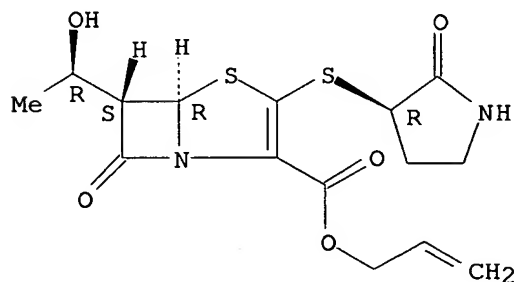
DT Patent

LA English

FAN.CNT 1

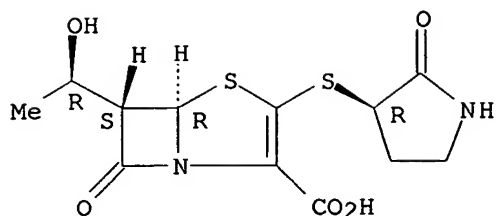
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 257602	A1	19880302	EP 1987-112231	19870822 <--
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	US 4762827	A	19880809	US 1987-59720	19870609 <--
	AU 8777362	A1	19880225	AU 1987-77362	19870824 <--
	AU 598018	B2	19900614		
	DK 8704401	A	19880226	DK 1987-4401	19870824 <--
	ZA 8706276	A	19880427	ZA 1987-6276	19870824 <--
	JP 63060991	A2	19880317	JP 1987-211205	19870825 <--
PRAI	US 1986-900066	A	19860825		
OS	CASREACT 109:73243; MARPAT 109:73243				
AB	Title compound (I), useful as an antibiotic, was prepared e.g., from the appropriate alkali metal thiopenemcarboxylate and a mercaptopyrrolidinone. (S)-3-Hydroxypyrrolidin-2-one (preparation given) was treated with MeSO <sub>2</sub> Cl. The resulting (S)-3-(methanesulfonyloxy)pyrrolidin-2-one was stirred with allyl 2-K (5R,6S,8R)-6-(1-hydroxyethyl)-2-mercaptothiopenem-3-carboxylate in DMF for 12 h at room temperature to give the corresponding allyl oxopyrrolidinylthiopenemcarboxylate, which was deprotected to give I.Na salt. I.Na salt is active in vitro against Staphylococcus aureus at 0.125 µg/mL. An injectable powder containing 1 g I and 1.05 g Na citrate was prepared				
IT	<b>115538-98-2P</b> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and deprotection of)				
RN	115538-98-2 HCAPLUS				
CN	4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, 2-propenyl ester, [5R-[3(R*),5α,6α(R*)]]- (9CI) (CA INDEX NAME)				

Absolute stereochemistry.



IT	<b>115648-63-0P 115648-64-1P</b> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (preparation of, as antibiotic)				
RN	115648-63-0 HCAPLUS				
CN	4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, [5R-[3(R*),5α,6α(R*)]]- (9CI) (CA INDEX NAME)				

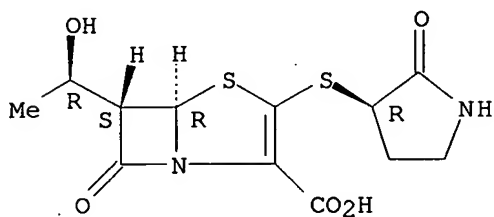
Absolute stereochemistry.



RN 115648-64-1 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
6-(1-hydroxyethyl)-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, monosodium salt,  
[5R-[3(R\*),5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● Na

L5 ANSWER 16 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1986:150883 HCAPLUS

DN 104:150883

TI Heterocyclic mercaptocarboxylic acid amides, imides and nitriles as  
corrosion inhibiting agents

IN Clubley, Brian George; Phillips, Emyr

PA Ciba-Geigy A.-G., Switz.

SO Eur. Pat. Appl., 42 pp.

CODEN: EPXXDW

DT Patent

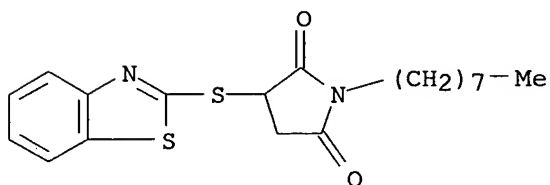
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 161222	A2	19851113	EP 1985-810218	19850508 <--
	EP 161222	A3	19870527		
	EP 161222	B1	19901010		
	R: BE, CH, DE, FR, GB, IT, LI, NL				
	US 4719036	A	19880112	US 1985-731816	19850508 <--
	AU 8542237	A1	19851114	AU 1985-42237	19850509 <--
	AU 584614	B2	19890601		
	CA 1315792	A1	19930406	CA 1985-481148	19850509 <--
	ZA 8503552	A	19851224	ZA 1985-3552	19850510 <--
	BR 8502238	A	19860114	BR 1985-2238	19850510 <--
	JP 61005070	A2	19860110	JP 1985-100368	19850511 <--



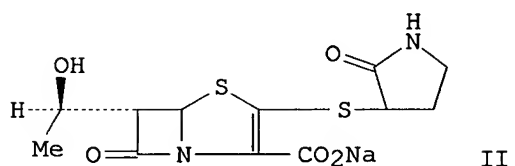
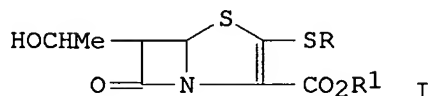
JP 2547316 B2 19961023  
 PRAI GB 1984-12064 A 19840511  
 AB Amides, imides, or nitriles of (cyclo)aliphatic acid derivs. of 2-mercaptobenzoxazoles, -benzothiazoles, or -benzimidazoles are corrosion inhibitors for coatings or aqueous systems in contact with metals. Thus, an alkyd coating containing 2% [[(benzothiazol-2-yl)thio]methyl]-N-butylsuccinamic acid was coated on steel, baked, and subjected to salt spray corrosion testing for 600 h. Resistance of the coating to blistering and of the metal to rusting were 4.7 and 5.0, resp. (6 best).  
 IT **101393-86-6**  
 RL: USES (Uses)  
 (corrosion inhibitors, for coatings)  
 RN 101393-86-6 HCAPLUS  
 CN 2,5-Pyrrolidinedione, 3-(2-benzothiazolylthio)-1-octyl- (9CI) (CA INDEX NAME)



L5 ANSWER 17 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1986:68673 HCAPLUS  
 DN 104:68673  
 TI 2-azacycloalkylthiopenem derivatives  
 IN Hamanaka, Ernest Seiichi  
 PA Pfizer Inc., USA  
 SO Eur. Pat. Appl., 55 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 138539	A1	19850424	EP 1984-306831	19841008 <--
	EP 138539	B1	19890315		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	US 4772597	A	19880920	US 1984-649516	19840913 <--
	AT 41425	E	19890415	AT 1984-306831	19841008 <--
	IL 73223	A1	19920216	IL 1984-73223	19841010 <--
	ES 536687	A1	19851116	ES 1984-536687	19841011 <--
	FI 8404023	A	19850415	FI 1984-4023	19841012 <--
	FI 82250	B	19901031		
	FI 82250	C	19910211		
	NO 8404090	A	19850415	NO 1984-4090	19841012 <--
	NO 167573	B	19910812		
	NO 167573	C	19911120		
	AU 8434190	A1	19850418	AU 1984-34190	19841012 <--
	AU 573268	B2	19880602		
	DK 8404895	A	19850523	DK 1984-4895	19841012 <--
	DD 223453	A5	19850612	DD 1984-268285	19841012 <--
	HU 35264	O	19850628	HU 1984-3830	19841012 <--

HU 194248	B	19880128		
ZA 8407982	A	19860528	ZA 1984-7982	19841012 <--
SU 1340590	A3	19870923	SU 1984-3804830	19841012 <--
CA 1263644	A1	19891205	CA 1984-465259	19841012 <--
JP 60120881	A2	19850628	JP 1984-216022	19841015 <--
PL 150059	B1	19900430	PL 1984-250031	19841015 <--
PRAI US 1983-542310	A	19831014		
US 1984-649516	A	19840913		
EP 1984-306831	A	19841008		
OS CASREACT 104:68673				
GI				



AB The title compds. I (R = N heterocyclyl, N heterocyclylalkyl; R1 = H, ester group) were prepared. Thus, (pyrrolidonylthio)penemcarboxylate II was prepared from 4-acetoxy-3-(1-tert-butyl dimethylsilyloxyethyl)-2-azetidinone in 7 steps via the 2-ethylsulfinylpenem.

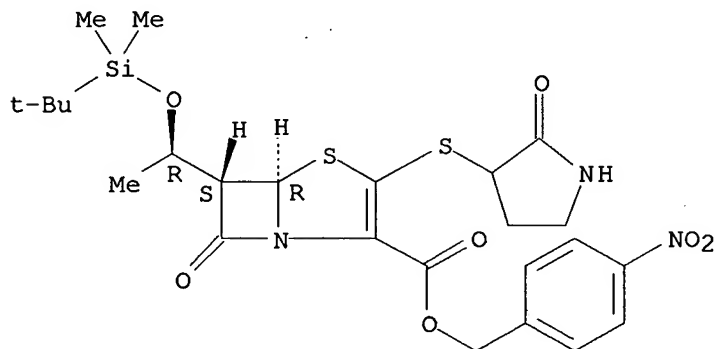
IT **97899-91-7P 97899-96-2P 97900-01-1P 97900-02-2P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and desilylation of)

RN 97899-91-7 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-[1-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]ethyl]-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, (4-nitrophenyl)methyl ester, [5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

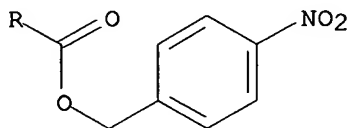
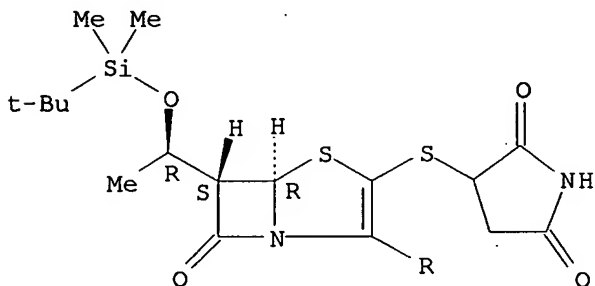
Absolute stereochemistry.



RN 97899-96-2 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
6-[1-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]ethyl]-3-[(2,5-dioxo-3-pyrrolidinyl)thio]-7-oxo-, (4-nitrophenyl)methyl ester,  
[5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

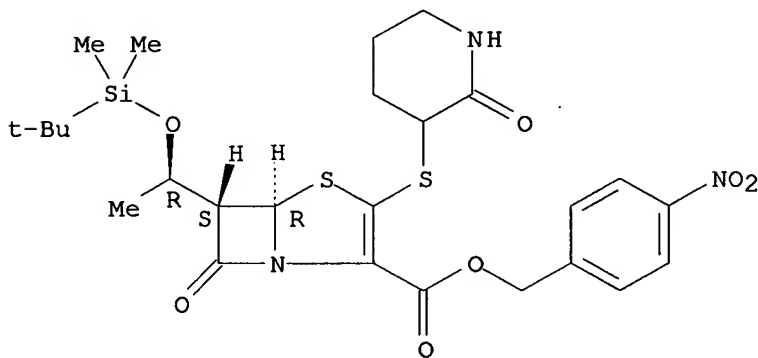
Absolute stereochemistry.



RN 97900-01-1 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
6-[1-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]ethyl]-7-oxo-3-[(2-oxo-3-piperidinyl)thio]-, (4-nitrophenyl)methyl ester, [5R-  
[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

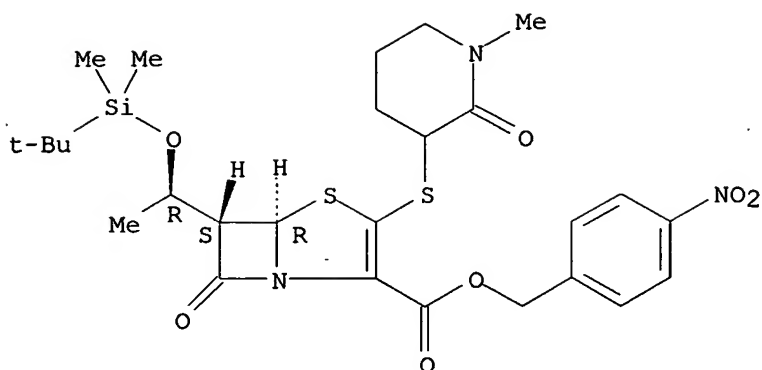
Absolute stereochemistry.



RN 97900-02-2 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
6-[1-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]ethyl]-3-[(1-methyl-2-oxo-3-piperidinyl)thio]-7-oxo-, (4-nitrophenyl)methyl ester,  
[5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 97899-64-4P 97899-70-2P 97899-83-7P

97948-08-8P

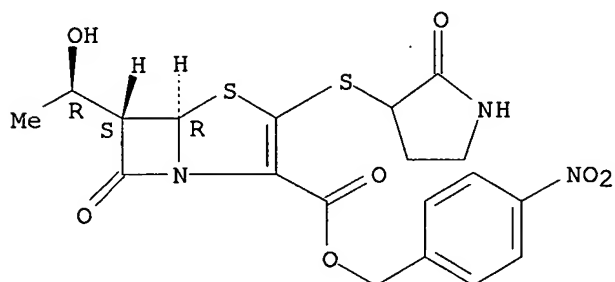
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and hydrogenolysis of)

RN 97899-64-4 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, (4-nitrophenyl)methyl ester, [5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

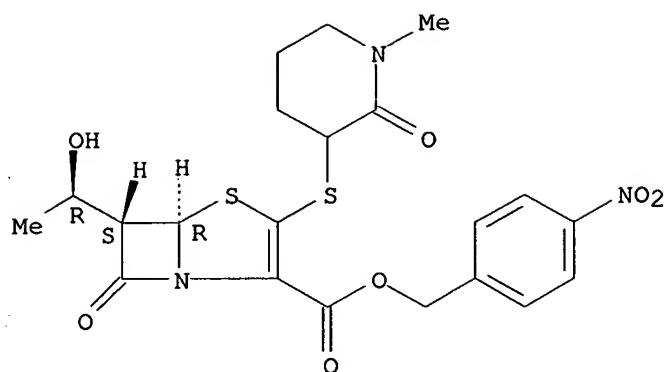
Absolute stereochemistry.



RN 97899-70-2 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 6-(1-hydroxyethyl)-3-[(1-methyl-2-oxo-3-piperidinyl)thio]-7-oxo-, (4-nitrophenyl)methyl ester, [5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

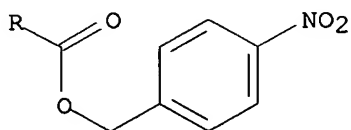
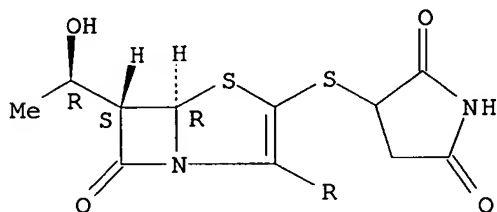
Absolute stereochemistry.



RN 97899-83-7 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
3-[(2,5-dioxo-3-pyrrolidinyl)thio]-6-(1-hydroxyethyl)-7-oxo-,  
(4-nitrophenyl)methyl ester, [5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA  
INDEX NAME)

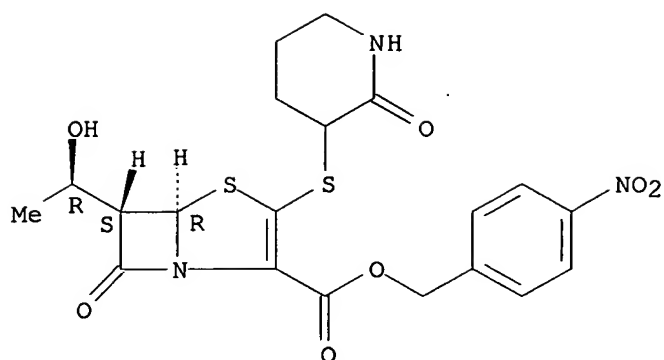
Absolute stereochemistry.



RN 97948-08-8 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
6-(1-hydroxyethyl)-7-oxo-3-[(2-oxo-3-piperidinyl)thio]-,  
(4-nitrophenyl)methyl ester, [5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA  
INDEX NAME)

Absolute stereochemistry.



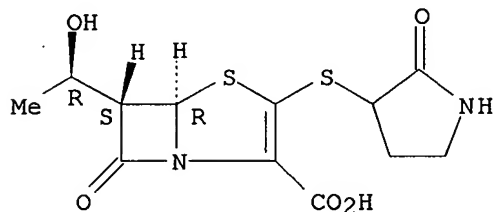
IT 97899-42-8P 97899-45-1P 97899-49-5P  
 97899-50-8P 97899-79-1P 97899-80-4P  
 97899-84-8P 97918-98-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 97899-42-8 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
 6-(1-hydroxyethyl)-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-,  
 [5R-[5α,6α(R\*)]]- (9CI) (CA INDEX NAME)

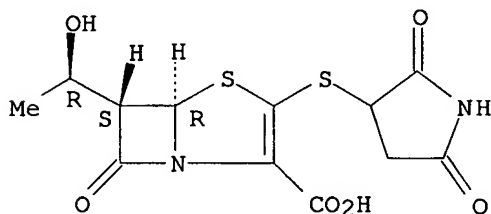
Absolute stereochemistry.



RN 97899-45-1 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
 3-[(2,5-dioxo-3-pyrrolidinyl)thio]-6-(1-hydroxyethyl)-7-oxo-,  
 [5R-[5α,6α(R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

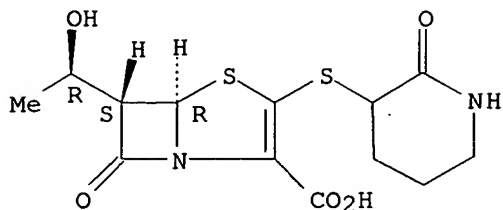


RN 97899-49-5 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
 6-(1-hydroxyethyl)-7-oxo-3-[(2-oxo-3-piperidinyl)thio]-,

[5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

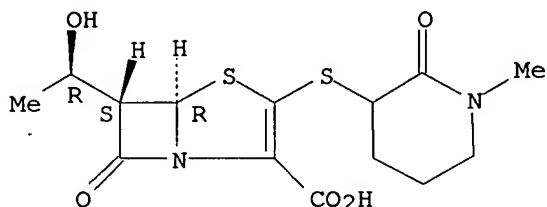
Absolute stereochemistry.



RN 97899-50-8 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
6-(1-hydroxyethyl)-3-[(1-methyl-2-oxo-3-piperidinyl)thio]-7-oxo-,  
[5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

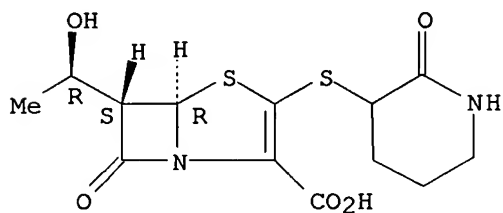
Absolute stereochemistry.



RN 97899-79-1 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
6-(1-hydroxyethyl)-7-oxo-3-[(2-oxo-3-piperidinyl)thio]-, monosodium salt,  
[5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

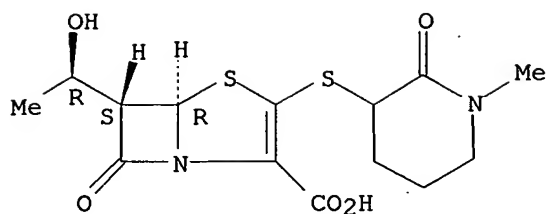


● Na

RN 97899-80-4 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
6-(1-hydroxyethyl)-3-[(1-methyl-2-oxo-3-piperidinyl)thio]-7-oxo-,  
monosodium salt, [5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

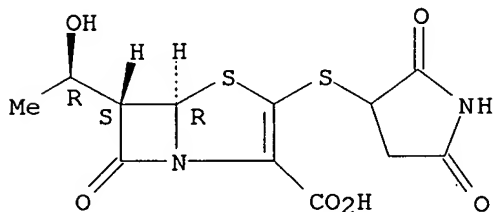
Absolute stereochemistry.



● Na

RN 97899-84-8 HCAPLUS  
 CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
 3-[(2,5-dioxo-3-pyrrolidinyl)thio]-6-(1-hydroxyethyl)-7-oxo-, monosodium  
 salt, [5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

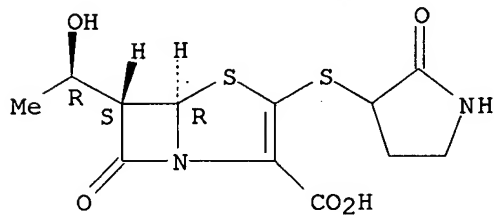
Absolute stereochemistry.



● Na

RN 97918-98-4 HCAPLUS  
 CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
 6-(1-hydroxyethyl)-7-oxo-3-[(2-oxo-3-pyrrolidinyl)thio]-, monosodium salt,  
 [5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

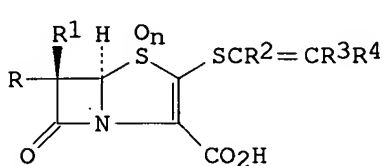


● Na

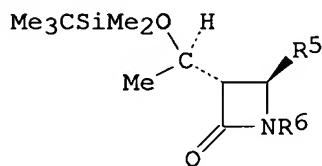


L5 ANSWER 18 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1985:6049 HCAPLUS  
 DN 102:6049  
 TI 2-Unsaturated alkylthiopen-2-em-3-carboxylic acids  
 IN Dininno, Frank P.; Leanza, William J.; Ratcliffe, Ronald W.; Muthard, David A.  
 PA Merck and Co., Inc. , USA  
 SO Eur. Pat. Appl., 114 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 FAN.CNT 1

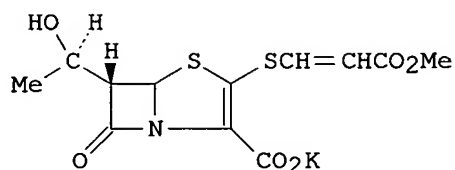
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 115308	A2	19840808	EP 1984-100579	19840120 <--
	EP 115308	A3	19841010		
	R: CH, DE, FR, GB, IT, LI, NL				
	US 4610823	A	19860909	US 1983-460729	19830125 <--
	US 4675317	A	19870623	US 1983-460728	19830125 <--
	EP 320497	A1	19890614	EP 1989-101894	19840120 <--
	R: CH, DE, FR, GB, IT, LI, NL				
	JP 59139386	A2	19840810	JP 1984-10368	19840125 <--
	JP 05016433	B4	19930304		
	JP 05017482	A2	19930126	JP 1991-314685	19911128 <--
	JP 05032667	A2	19930209	JP 1991-314687	19911128 <--
	JP 05032668	A2	19930209	JP 1991-314688	19911128 <--
	JP 05310759	A2	19931122	JP 1991-314686	19911128 <--
PRAI	US 1983-460728	A	19830125		
	US 1983-460729	A	19830125		
	EP 1984-100579	P	19840120		
OS	CASREACT 102:6049				
GI					



I



II



III

AB Alkylthiopenems I [R-R3 = H, (un)substituted alkyl, alkoxy, alkenyl, halogen, aralkyl, aryl, heterocyclyl, heterocyclylalkyl; R2R3 = bond; R4 = acyl, cyano, SO2Ph, (un)substituted CO2H, CONH2, COSH; n = 0, 1] were prepared. Thus II (R5 = OAc, R6 = H) was treated with Ph3SH and BrCH2CO2CH2CH:CH2 to give II (R5 = SCPh3, R6 = CH2CO2CH2CH:CH2) which was

treated with AgNO<sub>3</sub> and ClCSOPh to give II (R<sub>5</sub> = S<sub>2</sub>COPh, R<sub>6</sub> = CH<sub>2</sub>CO<sub>2</sub>CH<sub>2</sub>CH:CH<sub>2</sub>). The latter compound was cyclized, treated with HC.tplbond.CCO<sub>2</sub>Me, and deblocked to give (E)-III and (Z)-III.

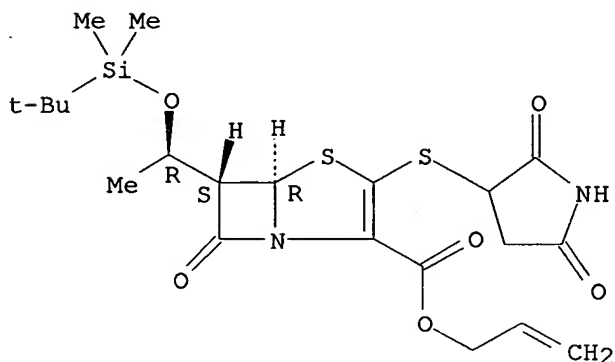
IT **93553-17-4P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and desilylation of)

RN 93553-17-4 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
6-[1-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]ethyl]-3-[(2,5-dioxo-3-pyrrolidinyl)thio]-7-oxo-, 2-propenyl ester, [5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



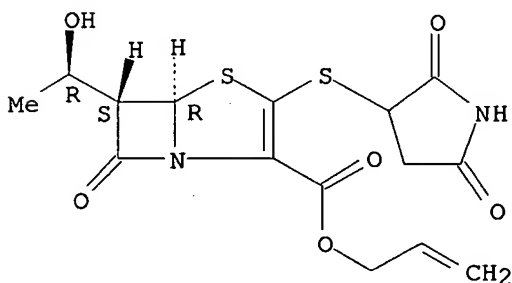
IT **93553-23-2P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and saponification of)

RN 93553-23-2 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,  
3-[(2,5-dioxo-3-pyrrolidinyl)thio]-6-(1-hydroxyethyl)-7-oxo-, 2-propenyl ester, [5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **93553-29-8P**

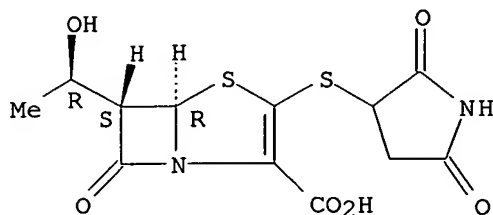
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 93553-29-8 HCAPLUS

CN 4-Thia-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid,

3-[(2,5-dioxo-3-pyrrolidinyl)thio]-6-(1-hydroxyethyl)-7-oxo-,  
monopotassium salt, [5R-[5 $\alpha$ ,6 $\alpha$ (R\*)]]- (9CI) (CA INDEX NAME)

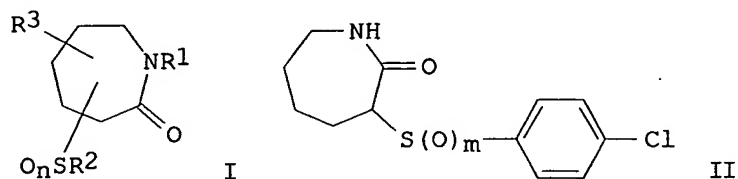
Absolute stereochemistry.



● K

L5 ANSWER 19 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 1984:85605 HCAPLUS  
DN 100:85605  
TI Sulfinyl- and sulfonylazacycloheptan-2-ones and their use as feed  
additives  
IN Fengler, Gerd; Botta, Artur; Scheer, Martin; Berschauer, Friedrich D.  
PA Bayer A.-G. , Fed. Rep. Ger.  
SO Ger. Offen., 38 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3217373	A1	19831110	DE 1982-3217373	19820508 <--
	EP 93949	A1	19831116	EP 1983-104096	19830427 <--
	EP 93949	B1	19860312		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	AT 18553	E	19860315	AT 1983-104096	19830427 <--
	US 4468392	A	19840828	US 1983-488948	19830428 <--
	AU 8314166	A1	19831110	AU 1983-14166	19830503 <--
	CS 240961	B2	19860313	CS 1983-3146	19830504 <--
	FI 8301549	A	19831109	FI 1983-1549	19830505 <--
	DK 8302048	A	19831109	DK 1983-2048	19830506 <--
	BR 8302389	A	19840110	BR 1983-2389	19830506 <--
	ES 522166	A1	19840201	ES 1983-522166	19830506 <--
	HU 32078	O	19840628	HU 1983-1578	19830506 <--
	HU 191833	B	19870428		
	ZA 8303234	A	19840829	ZA 1983-3234	19830506 <--
	JP 58208274	A2	19831203	JP 1983-77647	19830507 <--
	CS 240988	B2	19860313	CS 1984-201	19840110 <--
	CS 240989	B2	19860313	CS 1984-202	19840110 <--
PRAI	DE 1982-3217373		19820508		
	EP 1983-104096		19830427		
	CS 1983-3146		19830504		
OS	CASREACT 100:85605				
GI					



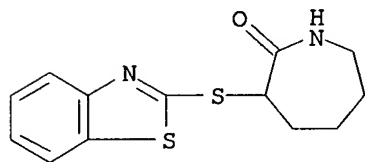
AB The title compds. I [R1 = H, (un)substituted alkyl, aryl, or acyl, and alkylcarbamoyl; R2 = (un)substituted alkyl, alkenyl, cycloalkyl, aralkyl, aryl, or heterocyclyl, sulfinyl or sulfonyl in  $\alpha$ - to  $\delta$ -position; R3 = H, alkyl, in  $\alpha$ - to  $\epsilon$ -position; n = 1, 2], useful as feed additives, were prepared by 2 methods. Treating 4-ClC6H4SH and NaOMe in MeOH with  $\alpha$ -bromocaprolactam in MeOH and stirring 3 h at room temperature after the end of the exothermic reaction gave 98% sulfide II (m = 0) which was oxidized in AcOH with 30% H2O2 in 48 h at room temperature to give 72% sulfoxide II (m = 1).

IT **88833-22-1**

RL: RCT (Reactant); RACT (Reactant or reagent)  
(oxidation of)

RN 88833-22-1 HCAPLUS

CN 2H-Azepin-2-one, 3-(2-benzothiazolylthio)hexahydro- (9CI) (CA INDEX NAME)

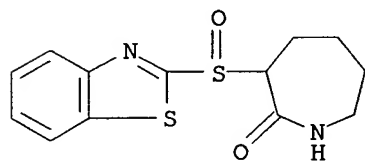


IT **88833-00-5**

RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation as feed additive)

RN 88833-00-5 HCAPLUS

CN 2H-Azepin-2-one, 3-(2-benzothiazolylsulfinyl)hexahydro- (9CI) (CA INDEX NAME)



L5 ANSWER 20 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

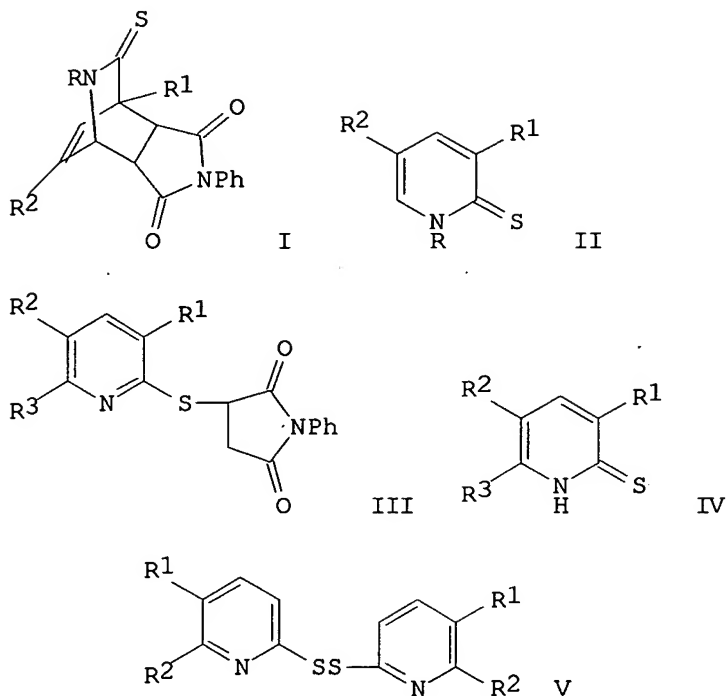
AN 1981:139657 HCAPLUS

DN 94:139657

TI Reaction of 2-thiopyridones with dienophiles

AU Pilipenko, V. S.

CS USSR  
 SO Deposited Doc. (1979), VINITI 3782, 172-3 Avail.: VINITI  
 DT Report  
 LA Russian  
 GI



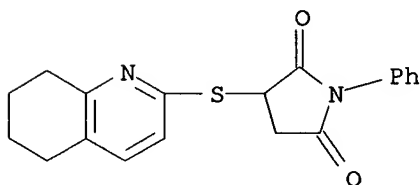
AB Diels-Alder adducts I ( $R = \text{Me, Et, Pr}$ ,  $R_1 = R_2 = \text{H}$ ;  $R = R_1 = \text{Me}$ ,  $R_2 = \text{H}$ ;  $R = \text{Me}$ ,  $R_1 = \text{H}$ ,  $R_2 = \text{Me}$ ) were prepared by treatment of II with N-phenylmaleimide. Addnl. obtained were III [ $R_1-R_3 = \text{H}$ ;  $R_1 = \text{H}$ ,  $R_2R_3 = (\text{CH}_2)_4$ ;  $R_1 = \text{H}$ ,  $R_2 = \text{Pr}$ ,  $R_3 = \text{Me}$ ] from the corresponding IV, and disulfides V [ $R_1 = R_2 = \text{H}$ ;  $R_1R_2 = (\text{CH}_2)_4$ ] from the appropriate thiopyridone and N-phenyltriazolidinedione.

IT **73866-62-3P**

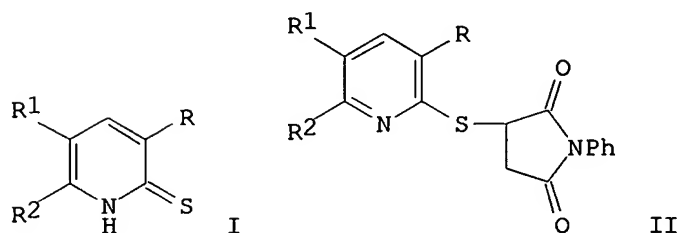
RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 73866-62-3 HCAPLUS

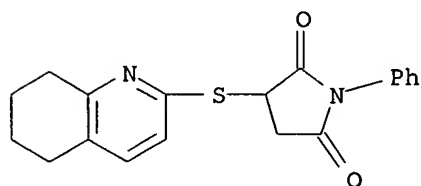
CN 2,5-Pyrrolidinedione, 1-phenyl-3-[(5,6,7,8-tetrahydro-2-quinolinyl)thio]-  
 (9CI) (CA INDEX NAME)



L5 ANSWER 21 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1980:446347 HCAPLUS  
 DN 93:46347  
 TI Diels-Alder reaction with 2-pyrones and 2-pyridones. XXVI. Reaction of  
 1H-2-thiopyridones with N-phenylmaleimide  
 AU Pilipenko, V. S.; Alimirzoev, F. A.; Stepanyants, A. U.  
 CS Mosk. Gos. Univ., Moscow, USSR  
 SO Zhurnal Organicheskoi Khimii (1979), 15(12), 2586-90  
 CODEN: ZORKAE; ISSN: 0514-7492  
 DT Journal  
 LA Russian  
 OS CASREACT 93:46347  
 GI



AB The title reaction with pyridinethiones I (R = R<sup>1</sup> = R<sup>2</sup> = H; R = H, R<sup>1</sup>R<sup>2</sup> = (CH<sub>2</sub>)<sub>4</sub>; R = Me, R<sup>1</sup> = R<sup>2</sup> = H; R = H, R<sup>1</sup> = Pr, R<sup>2</sup> = Me) gave 90-5% pyridylthiosuccinimides II. H and <sup>13</sup>C NMR of I and II were tabulated.  
 IT **73866-62-3P**  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and NMR of)  
 RN 73866-62-3 HCAPLUS  
 CN 2,5-Pyrrolidinedione, 1-phenyl-3-[(5,6,7,8-tetrahydro-2-quinolinyl)thio]-(9CI) (CA INDEX NAME)

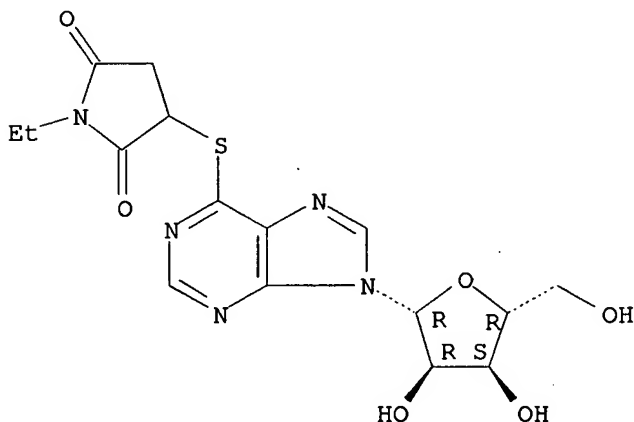


L5 ANSWER 22 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1978:439064 HCAPLUS  
 DN 89:39064  
 TI Nucleoside transport in mammalian cell membranes. IV. Organomercurials and organomercurial-mercaptanucleoside complexes as probes for nucleoside transport systems in hamster cells  
 AU Bibi, O.; Schwartz, J.; Eilam, Y.; Shohami, E.; Cabantchik, Z. I.

CS Inst. Life Sci., Hebrew Univ., Jerusalem, Israel  
 SO Journal of Membrane Biology (1978), 39(2-3), 159-83  
 CODEN: JMBBBO; ISSN: 0022-2631  
 DT Journal  
 LA English  
 AB Organomercurials from stable stoichiometric complexes with thiolated nucleosides. The complexes inhibited uptake of ribonucleosides and cytosine arabinoside (CAR) in various types of normal and transformed cells. The inhibition was competitive and reversible ( $K_i = 3-6 \mu M$ ). The interaction between complexes and transport system displayed a 1:1 stoichiometry. Chemical factors which contributed to the inhibitory power evaluated with a series of S-alkylated derivs. and S-Hg-R complexes of mercaptanucleosides. The inhibitory potency was not determined exclusively by the hydrophobic nature of either the S-alkylated or the S-Hg-R moieties. Chemical modification of cells with penetrating and nonpenetrating organomercurials lead to stimulation of nucleoside uptake and to an increase in its susceptibility to inhibition by S-Hg-R complexes or S-alkylated derivs. of mercaptopurine ribosides. The kinetic and chemical data obtained with nucleoside analogs and with chemical modifiers suggested complex features of nucleoside transport systems. Four distinct classes of sites were implied. (1) A substrate binding site exists which is susceptible directly to competitive inhibition by organomercurial-mercaptanucleoside complexes. (2) An addnl. site exists which is susceptible either to S-arylalkylated or S-mercuriated derivs. of 6-mercaptopurine ribosides. (3) SH-containing modifier site exists which stimulates uridine uptake upon binding of organomercurials. (4) Finally, a SH-containing modifier site exists which inhibited the function upon binding of organomercurials. From the observation that only SH sites related to stimulation were susceptible to modification by macromol.-SH modifier probes, some conclusions can be drawn regarding the disposition of the various sites in the cell membrane in general and among membrane components in particular.

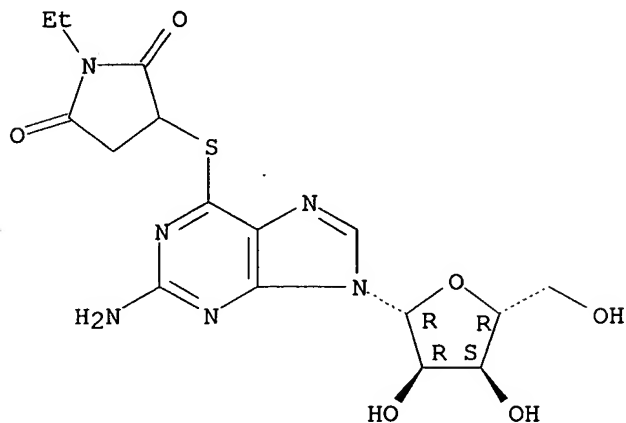
IT **67055-86-1 67055-87-2**  
 RL: ANST (Analytical study)  
 (nucleoside transport in presence of)  
 RN 67055-86-1 HCAPLUS  
 CN Inosine, 6-S-(1-ethyl-2,5-dioxo-3-pyrrolidinyl)-6-thio- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

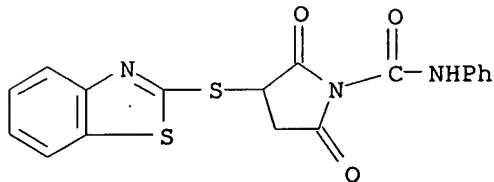


RN 67055-87-2 HCAPLUS  
 CN Guanosine, 6-S-(1-ethyl-2,5-dioxo-3-pyrrolidinyl)-6-thio- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 23 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1978:138876 HCAPLUS  
 DN 88:138876  
 TI Synthesis of N-(phenylcarbamoyl)succinamic acids and study of them as additives for synthetic oils  
 AU Zeinalova, G. A.; Kyazimova, N. S.; Nagieva, E. A.  
 CS Inst. Khim. Prasadok, Baku, USSR  
 SO Neftekhimiya (1977), 17(6), 935-8  
 CODEN: NEFTAH; ISSN: 0028-2421  
 DT Journal  
 LA Russian  
 AB N- and S-containing derivs. of N-(phenylcarbamoyl)succinamic acid reduced the oxidation of pentaerythritol ester lubricating oils by air at 225° in the presence of Al, steel, and Cu coupons. The α-amino-N-(phenylcarbamoyl)succinamic acids had the best antioxidant properties.  
 IT **65678-64-0P**  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and antioxidant properties of, in synthetic-ester lubricating oils)  
 RN 65678-64-0 HCAPLUS  
 CN 1-Pyrrolidinecarboxamide, 3-(2-benzothiazolylthio)-2,5-dioxo-N-phenyl- (9CI) (CA INDEX NAME)





L5 ANSWER 24 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1974:419251 HCAPLUS  
 DN 81:19251  
 TI Photographic fog inhibitors  
 IN Abele, Werner; Schneider, Rudolf  
 PA Du Pont de Nemours (Deutschland) G.m.b.H.  
 SO Ger. Offen., 21 pp.  
 CODEN: GWXXBX

DT Patent  
 LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2250136	A1	19740502	DE 1972-2250136	19721013 <--
	DE 2250136	B2	19751009		
	DE 2250136	C3	19760520		
	US 3888677	A	19750610	US 1973-405801	19731012 <--
	GB 1402819	A	19750813	GB 1973-47853	19731012 <--
	JP 49074930	A2	19740719	JP 1973-114375	19731013 <--
	JP 55017369	B4	19800510		
PRAI	DE 1972-2250136		19721013		

GI For diagram(s), see printed CA Issue.

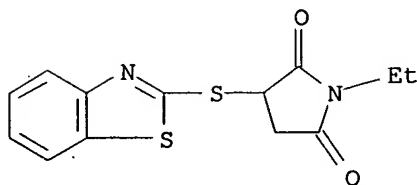
AB The thio ethers I (R = e.g. 1-phenyl-5-tetrazolyl, 2-benzothiazolyl, 4-acetamidophenyl, or 2-benzoxazolyl), stable at slightly acid or neutral pH (of the photog. emulsion) and releasing fog-inhibiting thiols at alkaline pH, were used in photog. emulsions for prevention of fog caused by overdevelopment without impairing the sensitivity. Thus, a highly sensitive Ag(Br,I) emulsion containing 0.3 mmole I (R = 1-phenyl-5-tetrazolyl)/mole AgBr was kept 1 hr at 35°, coated on a polyester support, exposed, and developed with an alkaline hydroquinone developer for 50 sec at 35° to give fog 0.28 and relative sensitivity 141 vs. 0.40 and 148, resp., for a I-free emulsion..

IT 53013-95-9 53013-99-3

RL: TEM (Technical or engineered material use); USES (Uses)  
 (photog. fog inhibitor)

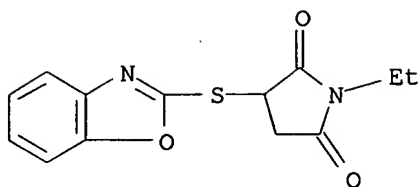
RN 53013-95-9 HCAPLUS

CN 2,5-Pyrrolidinedione, 3-(2-benzothiazolylthio)-1-ethyl- (9CI) (CA INDEX NAME)



RN 53013-99-3 HCAPLUS

CN 2,5-Pyrrolidinedione, 3-(2-benzoxazolylthio)-1-ethyl- (9CI) (CA INDEX NAME)



L5 ANSWER 25 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1961:144021 HCAPLUS

DN 55:144021

OREF 55:27231g-i,27232a-h

TI Derivatives of fluorene. XVI. N-(9-Fluorenyl)maleamic acids and maleimides

AU Pan, Hsi-Lung; Fletcher, T. Lloyd

CS Univ. of Washington, Seattle

SO Journal of Organic Chemistry (1961), 26, 2244-7

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA Unavailable

AB C<sub>5</sub>H<sub>5</sub>N (80 ml.) containing 21.8 g. 9-amino-fluorene-HCl treated portionwise with stirring 5 min. at 10° with 23.1 g. (CF<sub>3</sub>CO)<sub>2</sub>O, the mixture kept 30 min. at 20° and 15 min. at 100°, the cooled mixture diluted with H<sub>2</sub>O, and the precipitate crystallized from MeOH gave N-(9-fluorenyl)trifluoroacetamide (I), m. 252-3°. I (1.9 g.) stirred 10 min. at 75° in 15 ml. AcOH and 1 ml. concentrated H<sub>2</sub>SO<sub>4</sub> with portionwise addition of 0.7 ml. HNO<sub>3</sub> (d. 1.42) and 1.5 ml. AcOH, the mixture stirred 5 min. at 75-80° before cooling and diluting with H<sub>2</sub>O, filtered and the product crystallized from MeOH-C<sub>6</sub>H<sub>6</sub> yielded 71% N-[9-(2-nitrofluorenyl)]trifluoroacetamide (II), m. 236-7°. II (0.1 g.) refluxed 1 hr. in 8 ml. 1:1 9N H<sub>2</sub>SO<sub>4</sub>AcOH with 0.3 g. K<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> and the mixture diluted with H<sub>2</sub>O yielded 70% 2-nitrofluorenone, m. 225-6°. II (2 g.) refluxed 9 hrs. in 8 ml. concentrated HCl and 50 ml. alc., the solvent removed in vacuo and the crystalline product washed with 6N HCl yielded 96% dried 2-nitro-9-fluorenamine-HCl (III), m. 206° (decomposition). III (0.5 g.) in 20 ml. AcOH containing 0.2 g. anhydrous NaOAc heated, the hot solution added instantaneously with rapid stirring to 0.3 g. maleic anhydride in 5 ml. AcOH, the mixture stirred 30 min. and kept 1 hr. before diluting with H<sub>2</sub>O gave 0.55 g. N-[9-(2-nitrofluorenyl)]maleamic acid (IV), m. 208.5-9.5° (decomposition). Attempts to form the corresponding maleimide (V) in Ac<sub>2</sub>O in the presence of fused NaOAc gave a dark purple non-crystallizable solid. IV (0.5 g.) refluxed 7 hrs. in 25 ml. AcOH, the solvent removed and the solidified product recrystd. from alc. gave 0.33 g. V, m. 242.5-3.5°. II (3 g.) reduced in 150 ml. alc. by boiling with 1.5 ml. 100% N<sub>2</sub>H<sub>4</sub>.H<sub>2</sub>O and Raney Ni gave 2.6 g. N-[9-(2-aminofluorenyl)]trifluoroacetamide (VI), m. 267-8°; N-Ac derivative, m. 297.5-9.0° (decomposition), hydrolyzed (0.1 g.) by boiling 1 min. in 1 ml. alc. and 4 ml. 2% aqueous NaOH to give 2-acetamido-9-fluorenamine (VII). HONH<sub>2</sub>.HCl (9 g.) and 13.1 g. anhydrous NaOAc in 40 ml. H<sub>2</sub>O stirred with addition of 15.8 g. 2-acetamidofluorenone in 100 ml. alc., the mixture refluxed 10 min. and the cooled mixture diluted with H<sub>2</sub>O yielded 92% 2-acetamidofluorenone oxime, m. 238-9° (decomposition), reduced (2 g.) in 13 ml. 12:1 AcOH:H<sub>2</sub>O by heating 20 min. at 90-5° (H<sub>2</sub>O bath) with 2.6 g. Zn dust to give 1.9 g. VII, m. 160-3° (decomposition), recrystd. from Me<sub>2</sub>CO to yield N-[2-(9-isopropylideneaminofluorenyl)]acetamide, m. 209-11°

(decomposition). Maleic anhydride (3 g.) stirred in 20 ml. AcOH 20 min. with dropwise addition of 6.8 g. VII in 60 ml. AcOH, the thin paste stirred 2 hrs. and the residue on filtration washed with AcOH and dried gave N-[9-(2-acetamidofluorenyl)]maleamic acid, m. 213-14° (decomposition). The acid (2 g.) refluxed 22 hrs. in 50 ml. AcOH with 2 g. anhydrous NaOAc, the solvent removed and the residue triturated in ice-H<sub>2</sub>O, the dried solid extracted with boiling C<sub>6</sub>H<sub>6</sub> and the product on evaporation crystallized from

Me<sub>2</sub>CO gave

a small amount of unidentified solid, m. above 280° and 0.2 g. N-[9-(2-acetamidofluorenyl)]maleimide, m. 221-3° (C<sub>6</sub>H<sub>6</sub>). Maleic anhydride (5.5 g.) stirred in 20 ml. AcOH with gradual addition of 9.05 g. 9-aminofluorene in 40 ml. warm AcOH, the mixture stirred 30 min. and heated 15 min. on steam bath, cooled and diluted with H<sub>2</sub>O yielded 98% N-(9-fluorenyl)maleamic acid (VIII), m. 201.0-3.5° (decomposition). Maleic anhydride (1.1 g.), 2.18 g. 9-aminofluorene-HCl, and 0.9 g. anhydrous NaOAc refluxed with stirring 2 hrs. in 23 ml. AcOH, the cooled mixture diluted with H<sub>2</sub>O and the gummy solid crystallized from MeOH-H<sub>2</sub>O and C<sub>6</sub>H<sub>6</sub>-ligroine gave a small amount of VIII and 0.2 g. N-(9-fluorenyl)maleimide (IX), m. 174-5° (MeOH-H<sub>2</sub>O). IX (0.05 g.) in 3 ml. Me<sub>2</sub>CO treated dropwise in 5 min. with 1.1 equivs. N-[2-(α-thionaphthyl)]acetamide, the mixture stirred 20 min. and concentrated, the oily product treated with MeOH and the solid material recrystd. from Me<sub>2</sub>CO-MeOH gave 0.08 g. N-(9-fluorenyl)α-(S-[1-(2-acetamidonaphthyl)]thio)succinimide, m. 211-12°. VI (0.2 g.) treated with 0.14 g. maleic anhydride in 10 ml. AcOH gave 0.27 g. N-[2-(9-trifluoroacetamidofluorenyl)]maleamic acid (X), m. 225-7° (decomposition). X (7.8 ml.) cyclized in 30 ml. Ac<sub>2</sub>O containing 1.2 g. fused NaOAc gave 7.1 g. (crude) material, m. 262-3° (C<sub>6</sub>H<sub>6</sub>). X (4 g.) in 50 ml. N NaOH heated 3 min. on a steam bath, the cooled filtered solution acidified (ice bath) to pH 4 with HCl to give 3.3 g. yellow precipitate, m. 185-90° (decomposition), the precipitate (1 g.) heated

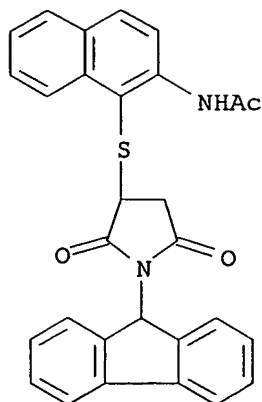
15 min.

on a steam bath with shaking with 6 ml. Ac<sub>2</sub>O containing 0.15 g. NaOAc, the cooled mixture stirred in 10% NaOAc and excess Ac<sub>2</sub>O destroyed with 5% Na<sub>2</sub>CO<sub>3</sub>, and the washed and dried precipitate (0.9 g.) recrystd. from Me<sub>2</sub>CO-C<sub>6</sub>H<sub>6</sub>-ligroine gave 0.85 g. unidentified material, m. 209-11°, and not the expected 9-acetamido analogmaleimide. Attempts to prepare 2,9-dimaleimidofluorene from 2,9-diaminofluorene were unsuccessful. Ultraviolet and infrared data were given.

IT 104176-13-8, Acetamide, N-[1-(1-fluoren-9-yl-2,5-dioxo-3-pyrrolidinylthio)-2-naphthyl]-  
(preparation of)

RN 104176-13-8 HCAPLUS

CN Acetamide, N-[1-(1-fluoren-9-yl-2,5-dioxo-3-pyrrolidinylthio)-2-naphthyl]-  
(6CI) (CA INDEX NAME)



L5 ANSWER 26 OF 26 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1961:131149 HCAPLUS

DN 55:131149

OREF 55:24696d-i,24697a-g

TI Derivatives of fluorene. XIV. N-(Substituted-fluorenyl)maleimides

AU Fletcher, T. Lloyd; Pan, Hsi-Lung

CS Univ. of Washington, Seattle

SO Journal of Organic Chemistry (1961), 26, 2037-43

CODEN: JOCEAH; ISSN: 0022-3263

DT Journal

LA Unavailable

GI For diagram(s), see printed CA Issue.

AB cf. CA 55, 23462a. A series of fluorenylmaleamic acids and maleimides and some sulfhydryl addition compds. with the latter were reported. Substituents with differing electron-withdrawing or donor properties might lead to compds. with differing biol. activities. N-(7-Fluoro-2-fluorenyl)isomaleimide (I) was produced in equal quantity with the normal maleimide in a standard cyclization procedure. No other instance of isomaleimide formation was observed. Infrared and ultraviolet spectral data were included and discussed. Wolff-Kishner reduction of 9-oxo-4-fluorenamine gave 4-fluorenamine, m. 114-15°. 7-Acetamido- and 7-bromo-2-fluorenamine, m. 146-7°, were obtained by reduction of the corresponding nitro compds. All the N-fluorenylmaleamic acids were prepared by treating maleic anhydride (II) with fluorenamines in a solvent, such as MeOH, Me<sub>2</sub>CO, or AcOH. The maleimides were made by cyclodehydration of the maleamic acids in Ac<sub>2</sub>O in the presence of fused NaOAc. The following examples were typical. II (35 g.) in 250 ml. MeOH treated in 0.5 hr. with 55 g. 2-amino-fluorene in 750 ml. MeOH, the suspension stirred 1 hr. at room temperature, filtered, a 2nd portion of 17 g. II in 50 ml. MeOH added to the filtrate, the mixture stirred 0.5 hr., filtered, and the ppts. combined gave 82 g. N-(2-fluorenyl)maleamic acid (III). III (75.7 g.), 13.5 g. fused NaOAc, and 270 ml. Ac<sub>2</sub>O heated 0.5 hr., left 1 hr. at room temperature, and added to ice H<sub>2</sub>O gave 64 g. N-(2-fluorenyl)maleimide. 2-Aminofluorenol (7.9 g.) in 260 ml. refluxing Me<sub>2</sub>CO added in 5 min. to 5 g. II in the same solvent, the mixture stirred 1 hr., and the product dried gave 11.7 g. N-(9-hydroxy-2-fluorenyl)maleamic acid (IV). IV (11.7 g.) warmed 15 min. with 1.5 g. NaOAc and 80 ml. Ac<sub>2</sub>O, the mixture left 0.5 hr. at room temperature and stirred into 5% NaHCO<sub>3</sub>, and the precipitate recrystd. gave 8.8 g. N-(9-acetoxy-2-fluorenyl)maleimide.

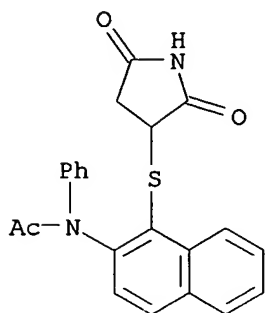
2-Acetamido-7-aminofluorene (22 g.) in 200 ml. AcOH added in 5 min. to 11 g. II in 100 ml. AcOH gave 31 g. N-(7-acetamido-2-fluorenyl)maleamic acid (V). V (15.6 g.), 2.4 g. fused NaOAc, and 120 ml. Ac<sub>2</sub>O heated 40 min. gave 10.5 g. N-(7-acetamido-2-fluorenyl)maleimide (CHCl<sub>3</sub>-alc.). N-(9-Oxo-4-fluorenyl)maleamic acid (4 g.), 0.8 g. fused NaOAc, and 25 ml. Ac<sub>2</sub>O heated 15 min. and stirred into 10% NaOAc solution gave 3.2 g. N-(9-oxo-4-fluorenyl)maleimide. 4-Fluorenamine (VI) (3.6 g.) in 35 ml. AcOH added to 2.2 g. II in 15 ml. AcOH, and the mixture stirred 2 hrs. and diluted with H<sub>2</sub>O gave 4.7 g. N-(4-fluorenyl)maleamic acid (VII). VI (5 g.) and 2.95 g. II in 50 ml. AcOH stirred 1 hr. at 50° gave 7.4 g. VII. N-(7-Fluoro-2-fluorenyl)maleamic acid (3 g.), 0.5 g. fused NaOAc, and 10 ml. Ac<sub>2</sub>O heated 15 min., cooled, stirred into 10% NaOAc, and the excess Ac<sub>2</sub>O destroyed with 5% NaHCO<sub>3</sub> gave 2.7 g. N-(7-fluoro-2-fluorenyl)maleimide, m. 243.5-5.0°. I (1.4 g.), obtained from the C<sub>6</sub>H<sub>6</sub> filtrates, m. 144-5.5° (C<sub>6</sub>H<sub>6</sub>-ligroine). II (1.1 g.) in 60 ml. AcOH mixed with 3 g. 9-bromo-2-fluorenamine.HBr, stirred 0.5 hr. with 0.9 g. anhydrous NaOAc gave 3.1 g. N-(9-bromo-2-fluorenyl)maleamic acid, m. above 300°. NaBH<sub>4</sub> reduction of 3-aminofluorenone gave 58% 3-amino-9-fluorenol, m. 146-7° (decomposition). N-(2-Fluorenyl)maleimide (0.25 g.) and 0.2 g. N-(1-mercapto-2-naphthyl)acetamide each in 40 ml. alc. refluxed 1 min., then 2 min., and cooled gave 0.45 g. N-(2-fluorenyl)-α-(2-acetamido-1-naphthylthio)succinimide, m. 250-1° (AcOH). A similar reaction for 0.5 hr. in refluxing Me<sub>2</sub>CO with cetyl mercaptan gave 40% N-(2-fluorenyl)-α-(hexadecylthio)succinimide, m. about 105°. 2-Mercaptoethylamine-HCl (0.25 g.) and 0.4 g. anhydrous NaOAc stirred into 10 ml. Me<sub>2</sub>CO, treated with H<sub>2</sub>O, then stirred with addition of 0.5 g. N-(2-fluorenyl)maleimide in 20 ml. Me<sub>2</sub>CO in 15 min. gave 0.3 g. N-(2-fluorenyl)-α-(2-aminoethylthio)succinimide, m. 243.5-4.5° (Me<sub>2</sub>CO). Equimolar amts. of N-(7-fluoro-2-fluorenyl)maleimid, the high melting isomer, and N-(mercapto-2-naphthyl)acetamide (VIII) treated with refluxing Me<sub>2</sub>CO gave 90% N-[2-(7-fluorofluorenyl)-α-(2-acetamido-1-naphthylthio)succinimide, m. 257-8°. The addition of the low-melting isomer and VIII gave 80% product, m. 255-6.5°, similar to the above compound N-Phenylmaleimide, m. 89.5-90.0°, prepared from N-phenylmaleamic acid, allowed to react with VIII in Me<sub>2</sub>CO gave 83% N-phenyl-α-(2-acetamido-1-naphthylthio)succinimide, m. 201.5-2.5°. The following RNHCOCH:CHCO<sub>2</sub>H were thus obtained (R, % yield, m.p. given): 1-fluorenyl, 98.5, 179.5-81.5° (decomposition); 1-(9-oxofluorenyl), 100, 203.5-5.5° (decomposition); 2-fluorenyl, 97, 220-8° (decomposition); 2-(7-acetamidofluorenyl), 100, 218-20° (decomposition); 2-(7-bromofluorenyl), 99, 230-5° (decomposition); 2-(9-bromofluorenyl), 99-100°, above 300°; 2-(7-fluorofluorenyl), 100, 226-30° (decomposition); 2-(7-nitrofluorenyl), 100, 253-5° (decomposition); 2-(3-bromo-9-oxofluorenyl), 97, 217-18.5° (decomposition); 2-(9-hydroxyfluorenyl), 99, 250-5° (decomposition); 2-(9-oxofluorenyl), 80, 225-30° (decomposition); 3-fluorenyl, 79, 197-9.5° (decomposition); 3(9-hydroxyfluorenyl), 88, 191-3° (decomposition); 3-(9-oxofluorenyl), 77, 187-92° (decomposition); 4-fluorenyl, 84-95, 165.5-7.0° (slight decomposition); 4-(9-oxofluorenyl), 95, 193-4.5° (decomposition). The following RN.CO.CH:CH.CO were similarly prepared (R, % yield, m.p. given): 1-fluorenyl, 75, 177-8°; 1-(9-oxofluorenyl), 85, 162.5-3.5°; 2-fluorenyl, 91, 186.5-8.0°; 2-(7-acetamidofluorenyl), 71, about 286° (glassy melt); 2-(7-bromofluorenyl), 81, 204.5-5.5°; 2-(9-bromofluorenyl), 45, 193-4° (slight decomposition); 2-(7-fluorofluorenyl), 43, 244-5° (the other isomer, 50% yield, m. 145-6°);

2-(7-nitrofluorenyl), 85, above 300°; 2-(3-bromo-9-oxofluorenyl), 100, 234-4.5°; 2-(9-acetoxyfluorenyl), 88-92°, 219-20°; 2-(9-oxofluorenyl), 82, 223-4°; 3-fluorenyl, 77, 182-3°; 3-(9-oxofluorenyl), 100, 201.5-2.5°; 4-(9-oxofluorenyl), 85, 192-4°.

IT 102704-64-3, Succinimide, 2-(2-acetamido-1-naphthylthio)-N-phenyl-  
115035-18-2, Succinimide, 2-(2-acetamido-1-naphthylthio)-N-7-fluorofluoren-2-yl-  
(preparation of)

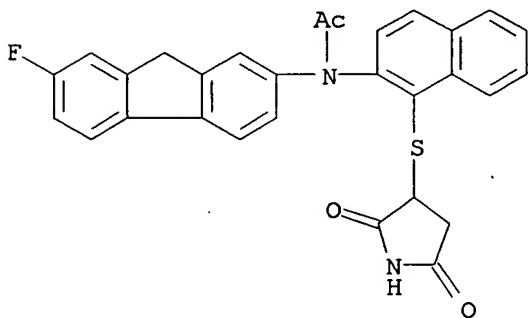
RN 102704-64-3 HCAPLUS

CN Succinimide, 2-(2-acetamido-1-naphthylthio)-N-phenyl- (6CI) (CA INDEX NAME)



RN 115035-18-2 HCAPLUS

CN Succinimide, 2-(2-acetamido-1-naphthylthio)-N-7-fluorofluoren-2-yl- (6CI)  
(CA INDEX NAME)



=> s l4 not l5

L6 5 L4 NOT L5

=> dis l6 1-5 bib abs

L6 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:486395 HCAPLUS

DN 141:42891

TI Artificial low-density lipoprotein carriers for transport of substances across the blood-brain barrier

IN Nelson, Thomas J.; Quattrone, Alessandro; Alkon, Daniel L.

PA Blanchette Rockefeller Neurosciences Institute, USA  
 SO PCT Int. Appl., 41 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004050062	A2	20040617	WO 2003-IB5558	20031202
	W:				
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	RW:				
	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2004204354	A1	20041014	US 2003-724833	20031202
PRAI	US 2002-430476P	P	20021203		

AB This invention relates to a highly efficient artificial low-d. lipoprotein (LDL) carrier system for the targeted delivery therapeutic agents across the blood-brain barrier (BBB). In particular, this invention relates to artificial LDL particles comprised of three lipid elements: phosphatidyl choline, fatty-acyl-cholesterol esters, and at least one apolipoprotein.. The present invention further relates to compns., methods and kits comprising artificial LDL particles for targeting drugs to and across the BBB for the prevention and treatment of brain diseases.

L6 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:711623 HCAPLUS

DN 139:246832

TI Thiol maleimide adducts useful for vulcanization accelerators and compositions therewith

IN Choi, Won-moon; Yatsuyanagi, Akira

PA Yokohama Rubber Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 12 pp.

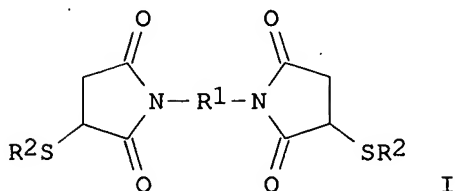
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003252872	A2	20030910	JP 2002-55572	20020301
PRAI	JP 2002-55572		20020301		
OS	MARPAT 139:246832				
GI					



AB Title adducts are represented by the general formula I of which highly reactive thiol groups are protected, where R1 = C1-24 noncyclic aliphatic group, C5-18 cyclic aliphatic group, C6-18 aromatic group, or C7-24 alkylarom. group (may be substituted, may contain SO<sub>2</sub>, O, N, and/or S), R2 = independently C1-24 organic group having no active hydrogen (may be substituted). Thus, 0.1 mol 1,6-bismaleimido-hexane and 0.2 mol 2-mercaptobenzothiazole were reacted to give an adduct. A composition comprising 100 parts Nipol IR 2200 and 3.5 parts adduct was vulcanized at 160-180° showing reduced reversion.

L6 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2003:375555 HCAPLUS  
 DN 139:190626  
 TI Substituted quinazolines, Part 2. Synthesis and in-vitro anticancer evaluation of new 2-substituted mercapto-3H-quinazoline analogs  
 AU Khalil, Ashraf A.; Abdel Hamide, Sami G.; Al-Obaid, Abdulrahman M.; El-Subbagh, Hussein I.  
 CS Department of Pharmaceutical Chemistry, College of Pharmacy, King Saud University, Riyadh, 11451, Saudi Arabia  
 SO Archiv der Pharmazie (Weinheim, Germany) (2003), 336(2), 95-103  
 CODEN: ARPMAS; ISSN: 0365-6233  
 PB Wiley-VCH Verlag GmbH & Co. KGaA  
 DT Journal  
 LA English  
 OS CASREACT 139:190626

AB A new series of 2-substituted mercapto-3H-quinazolines bearing 6-iodo and 2-heteroarylthio functions was synthesized and screened for their in vitro antitumor activity. Eighteen compds. were identified as active anticancer agents. N'-[(3-Benzyl-4-oxo-6-iodo-3H-quinazoline-2-yl)thioacetyl]-N3-ethylthiosemicarbazide, N-benzoyl-N'-[2-(3-benzyl-4-oxo-6-iodo-3H-quinazolin-2-yl)thioacetyl]hydrazine, and 2-[(3,6-dioxo-pyridazin-4-yl)thio]-3-benzyl-4-oxo-6-iodo-3H-quinazoline proved to be the most active members in this study. They showed MG-MID, GI50 values of 12.8, 11.3, and 13.8 µM, resp. The detailed synthesis and biol. screening data are reported.

RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2002:928245 HCAPLUS  
 DN 138:14055  
 TI Preparation of substituted thioacetamides for treatment of sleep disorders  
 IN Bacon, Edward R.; Chatterjee, Sankar; Dunn, Derek; Mallamo, John P.; Miller, Matthew S.; Tripathy, Rabindranath; Vaught, Jeffry L.  
 PA Cephalon, Inc., USA  
 SO U.S. Pat. Appl. Publ., 52 pp., Cont.-in-part of U.S. Ser. No. 855,228.  
 CODEN: USXXCO

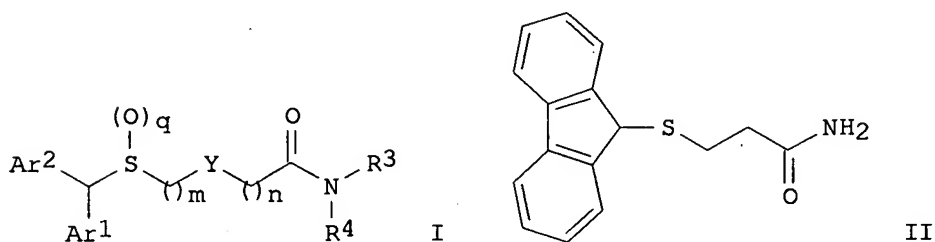
DT Patent  
 LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002183334	A1	20021205	US 2001-14645	20011026
	US 6670358	B2	20031230		
	US 2002045629	A1	20020418	US 2001-855228	20010515
	US 6492396	B2	20021210		



WO 2003037853 A1 20030508 WO 2002-US34188 20021025  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,  
CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
EP 1438288 A1 20040721 EP 2002-786511 20021025  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK  
BR 2002013540 A 20041019 BR 2002-13540 20021025  
ZA 2002009278 A 20040216 ZA 2002-9278 20021114  
US 2004116445 A1 20040617 US 2003-716238 20031118  
PRAI US 2000-204789P P 20000516  
US 2001-268283P P 20010213  
US 2001-855228 A2 20010515  
US 2001-14645 A 20011026  
WO 2002-US34188 W 20021025  
OS MARPAT 138:14055  
GI



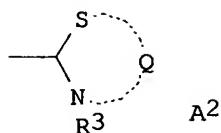
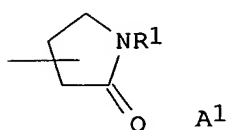
AB Title compds. I [Ar1-2 = (hetero)aryl; Y = alkylene, alkyl, (hetero)arylene, cycloalkylene, O, SOO-2, etc.; R3-4 = H, alkyl, OH, etc.; m, n = 0-3; q = 0-2] were prepared. For instance, thiourea and 9-hydroxyfluorene were reacted (HBraq, 100-105°, 30 min) to afford the corresponding thiouronium salt. This was treated with NaOHaq and 3-bromopropionic acid to afford the sulfide-carboxylic acid and subsequently treated with SOCl2/NH4OH to give II. Selected example compds. possessed wake-promoting activity (rats). I are useful in the treatment of sleep disorders, Parkinson's disease, etc.

L6 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2001:299110 HCAPLUS  
DN 134:334220  
TI Silver halide photographic material containing bleaching accelerator-releasing coupler and manufacture of the coupler  
IN Kataoka, Emiko; Ishige, Osamu; Ishii, Fumio; Oshiyama, Tomohiro  
PA Konica Co., Japan  
SO Jpn. Kokai Tokkyo Koho, 43 pp.  
CODEN: JKXXAF  
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001117204	A2	20010427	JP 1999-297162	19991019
PRAI	JP 1999-297162		19991019		
OS	MARPAT 134:334220				
GI					



AB The photog. material contains a coupler Coup-(Time)nSZ (Z = X, X1, A1(I), A2(II)); X = saturated heterocycle having no OH, CO<sub>2</sub>M, SO<sub>2</sub>M, NRaRb groups; M = H, alkali metal, ammonium, Ra, Rb = H, C1-4 aliphatic group; X1 = nonsubstituted saturated heterocycle; n = 0-2; R1 = H, alkyl; R2 = H, substituent without OH, CO<sub>2</sub>M, SO<sub>3</sub>M, and NR1Rb; R3 = C1-8 alkyl; Q = C2-4 aliphatic group to form ring with S and N; Coup = coupler residue; Time = timing group). The compds. Coup-SR4 and Coup-SA1 are manufactured by reaction of Coup-SH with silylating agents, followed by reaction with unsatd. heterocyclic compds. The photog. material shows excellent desilvering characteristics at rapid development process and good storage stability.

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COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
145.67	301.30

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-21.70	-21.70

CA SUBSCRIBER PRICE

STN INTERNATIONAL LOGOFF AT 10:24:10 ON 10 DEC 2004